Remarks
ON THE
OPERATIVE CURE OF ASCITES DUE TO LIVER CIRRHOSIS.*

BY
RUTHERFORD MORISON, F.R.C.S.,
PROFESSOR OF SURGERY, DURHAM UNIVERSITY.

THE first paper published by Dr. Drummond and myself in connexion with this subject appeared in the BRITISH MEDICAL JOURNAL of September 19th, 1896.

Not until Dr. Charles Frazier wrote on the operative treatment of hepatic cirrhosis four years later[1] were we aware that any one had a prior claim to our own in respect to the procedure suggested. As Professor Talma's suggestion and case were recorded in a Dutch journal and in the Dutch language, with which neither of us was acquainted, our ignorance will cause no surprise.

The first case, successfully operated upon more than sixteen years ago, was shown by me in the Medical Section at the Annual Meeting of the British Medical Association in Carlisle in July, 1896. The patient, after being tapped four times at intervals of a month, and then operated upon, had recovered her health, and was shown in excellent condition and without any fluid in her abdomen eight months after the operation.

In the first paper[2] I offered an explanation as to the manner in which the operation was suggested to me. During a visit to the *post-mortem* room Dr. Drummond showed me the body of a man dead from cirrhosis of the liver, and explained that this patient had no ascites because the collateral circulation, chiefly through the enlarged veins of Sappey, had relieved the portal obstruction.

I then suggested that, if his explanation was correct, it might be possible to cure an existing ascites by an operation which would establish a new anastomotic circulation. In the first case on which we tried the operation the ascites was not the result of cirrhosis, and the patient died nineteen months later, unrelieved.

The second and successful case was that of the patient shown at the British Medical Association meeting at Carlisle, previously referred to, and on which the paper[3] of Dr. Drummond and myself was based.

In this paper we first referred to the ordinary connexions between the portal and systemic circulations, and then said, "but when adhesions form between the viscera and parietes, innumerable new vessels develop in them and convey blood freely from the portal into the systemic circulation through the subperitoneal plexus of veins." (The proof of this is that when a parietal and visceral adhesion are separated both the visceral and parietal raw surfaces bleed.) "Probably the most important of these new channels can be developed in adhesions between the omentum and parietes."

"A study of Nature's methods suggested that operation might be useful in selected cases, for we were familiar with the enormous newly-formed blood vessels frequently met with in the portion of omentum adherent to rapidly growing abdominal tumours; we had seen adhesions of all sorts in the abdomen develop large vascular channels, and we knew that such vascular adhesions could form with considerable rapidity. On one occasion one of us (Morison) removed an ovarian cyst with twisted pedicle of three days' duration, and already vascular adhesions had fixed the omentum to the tumour."

In a second paper on the same subject,[4] I reported the subsequent history of our successful case, and also the result of a *post-mortem* examination, as follows:

> The patient, a woman, attended the Medical Section at the Annual Meeting of the British Medical Association at Carlisle eight months after the operation, and was then apparently in perfect health. The abdominal scar had yielded to some extent, producing a ventral hernia. This was the result of a cough which had troubled her for some months and of imperfect suturing, but the hernia occasioned no inconvenience and was kept in place by an abdominal belt. Two years after the operation this patient called on me concerning her ventral hernia. During this time she had felt strong and well, had led an active and happy life, and had performed all the duties of her household. Latterly a troublesome cough had led to a marked increase in the size of the hernia, and her belt had ceased to be a sufficient support. She was anxious to have the hernia radically cured, and, considering the trouble it was causing, the certainty that it would get worse, and the good condition she was in, I could not refuse to undertake the operation. (This was performed on October 5th, 1897.) The only peculiarity observed was that the subperitoneal vessels were large and bled freely. She recovered in an hour from the immediate effects of the operation, but towards evening became restless and complained of pricking pains and numbness in her arms and legs. Next morning, after a restless night, I found her distinctly jaundiced and complaining still more of the numbness and pain in her arms and legs, which were very tender when touched. The jaundice and restlessness increased, and on the second day after the operation she became comatose, and died at night, deeply jaundiced.
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> At the necropsy Mr. W. G. Richardson removed the whole of the abdominal viscera and the parietes, excepting the skin, *en masse*. He then injected the whole from the trunk of the portal vein. I showed the specimen at a meeting of the Northumberland and Durham Medical Society on November 11th, 1897, and in demonstrating it said: "The liver, the spleen, and the intestines are seen to be attached to the parietes chiefly by dense band-like adhesions. (Many of these seemed to contain little except a blood vessel, and in several of them such vessel was 4 in. in length.) The omentum, also, is firmly adherent over the anterior abdominal wall by strong bands. In all of these adhesions innumerable injected vessels are readily seen, passing from the viscera to the parietes. Many of them are fully the size of a normal radial artery. The subperitoneal plexus of vessels forms a dense large network. . . ."
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> Dr. Bolan reported as to the microscopical condition of the liver: "Typical cirrhosis, with much fatty degeneration. Fibrous tissues well formed. . . . So-called new bile ducts present in numbers, liver cells showing extreme fatty degeneration in all zones, and normal cells few and situated in central portion of lobule."
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> This patient had a definite alcoholic history.

My second successful case, published in the same paper,[5] was that of a temperate man, aged 42, operated upon on January 12th, 1897. His abdomen was much swollen and tense with fluid.

> The abdomen was opened . . . between the umbilicus and ensiform cartilage, sufficiently to admit my index finger for exploratory purposes. The characteristic hard, hobnail surface, which was felt on reaching the liver, left no further doubt as to the diagnosis, and the parietal incision was extended from the ensiform cartilage to the umbilicus. . . . The general recovery of the patient requires no note. From the surgical point of view it was straightforward. It was, however, evident, during the last few days of his stay in Newcastle, that he was much depressed mentally, and after his return home the depression increased, and for three weeks he was alternately depressed and excited. This feature seems to be deserving of more attention than would have been given to the same in an ordinary case, for it may possibly be one of the special risks of this operation. Dr. Drummond has brought before the Northumberland and Durham Medical Society at various times cases of liver cirrhosis complicated by peculiar nervous symptoms, and in one patient who died he was unable to find any change in the nervous system to account for the symptoms. In that case the liver was in an advanced stage of cirrhosis; there was no ascites, and there was a very large vein of Sappey connecting the portal with the systemic circulation. The explanation given by Dr. Drummond of the attacks—namely, that they were due to intestinal products finding their way directly into the systemic circulation without any liver influence being brought to bear on them, is in accordance with the fact that this patient was on several occasions rescued from an apparently hopeless coma by the administration of a brisk purgative, and also with the results of experiments on the liver functions.
>
> *Subsequent History.*
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> Ten months after the operation my patient was shown at a meeting of the Northumberland and Durham Medical Society. He appeared then to be in excellent health, and said that he felt perfectly well. . . . I next heard definitely of him in January, 1899. A well-known insurance office wrote asking me to report on the nature of the operation performed two years previously. He had been passed by the medical adviser of the company as a first-class life, but before completing the insurance I was consulted.

This patient got pneumonia—of which he had previously three attacks—in the spring of 1903, never satisfactorily recovered, and died of heart and kidney disease, with general dropsy and ascites, on August 10th, 1903. The *post-mortem* examination showed liver cirrhosis. For six years he was quite well.

Tempted by this success I shortly afterwards operated upon an alcoholic man with cirrhosis and ascites who had never been tapped. He died three days after the operation comatose and jaundiced.

The only other death I have had due to the operation occurred in a young woman on whom I operated in 1910. She had cirrhosis of the liver consequent on acute yellow atrophy, and had been tapped several times for ascites.

* Read before the Surgical Section of the Royal Society of Medicine.

She died three days after the operation comatose and jaundiced, as the two previous cases had.

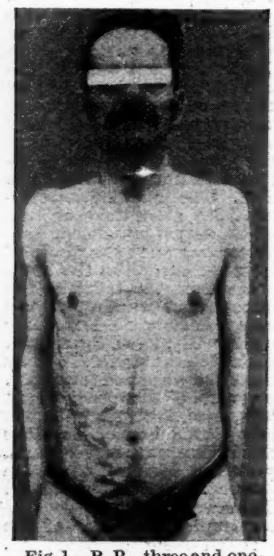

Fig. 1.—R. P., three and one-half years after operation. Shows the enlargement of the epigastric vein on the right side. The wearing of a truss has prevented the enlargement of the corresponding vein on the left side.

My third successful case was published in the *Annals of Surgery*, September, 1903.

The patient was a man 52 years of age, a heavy drinker, who had been tapped before operation (fourteen times for ascites) at intervals varying from six to twenty days.

The operation was performed on August 29th, 1899. The liver was firm, finely granular on the surface, and of about normal size. The spleen was hard, and enlarged to at least double the normal size.

In July, 1903 (four years later), the report on his condition by the surgical registrar, Mr. G. Grey Turner, was: "He is very well; never looked better; is fat and strong, and has a good appetite. There are no signs of fluid in the abdomen. The veins in the abdominal wall are very large. He complains of some dragging pain in the abdomen; the liver can be felt adherent to the abdominal wall."

In July, 1910 (eleven years after operation), this patient was shown to the Society of Clinical Surgeons of America, who visited this country. He had been doing regular work, and was in good health. At the present time, between twelve and thirteen years after the operation, he is still well, and 65 years old.*

In my last paper[6] I say: "Other factors besides mechanical obstruction of the portal vein doubtless aid the development or retard the arrest of ascites due to cirrhosis; but my cases prove at least that the establishment of an artificial accessory circulation can cure it." Further experience has confirmed this view, but, as I have always been careful to point out, the cases in which operation can be of use are rare and must be carefully selected.

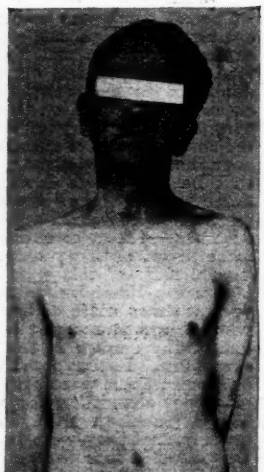

Fig. 2.—R. P., May 4th, 1910. A striking enlargement of the superficial veins, such as is shown here, may lead to erroneous conclusions. The circulation through them is relatively insignificant compared with that in the subperitoneal vessels. In many cases of cirrhosis the subperitoneal plexus forms a spongy sheet, which bleeds like a naevus when incised. The object of operation is to make extensive communications between this and the visceral vessels There must be, for this purpose, widespread adhesions. Operations which separate or excise the peritoneum should be avoided, and the omentum must be spread out and fixed under the abdominal wall.

So far as I know, the most suitable are those of alcoholic cirrhosis in patients otherwise sound and whom repeated tapping has failed to cure. None of these cases have, in our experience, been failures. The reason probably is similar to that of the cure of dropsy from heart failure following persistent overstrain. In both the chief predisposing cause of the dropsy can be removed—in the case of the heart by rest, in the case of the liver by abstinence from alcohol. This explanation seems probable, because, though I have operated upon patients in good condition with ascites due to syphilitic cirrhosis, none of them have been cured.

The most unfavourable cases are those which at their commencement simulate an abdominal emergency and suffer from pain and tense tympanites preceding the development of ascites.

The Operation.

The choice of an anaesthetic may be of importance. The great danger in these cases appears to be the development of a condition related to acute yellow atrophy, and chloroform, as is well known, can produce similar changes in the liver, so that some other anaesthetic should be chosen.

My first case taught me that the abdominal incision should be made above the umbilicus to avoid the development of a ventral hernia. With this exception, the operation I do now is the same as that I originally suggested.

The steps are:

1. Open the abdomen from the ensiform cartilage to the umbilicus.
2. Introduce the hand into the abdomen and project a finger against the anterior parietes in the middle line, 3 in. above the pubis.
3. Make a small incision on to the finger tip, and through this introduce a long small glass drainage tube into the recto-vesical or recto-uterine pouch.
4. Dry the abdominal cavity and scrub the peritoneum with mops.
5. Suture the omentum to the anterior parietal peritoneum across the abdominal wall, and close the upper abdominal wound.
6. Apply an antiseptic dressing over the wound and tube, and over this, from above down to the tube, a series of long circular strips of adhesive strapping, with the object of keeping the parietal in contact with the visceral peritoneum.
7. The tube now exposed through the dressings is surrounded with a sheet of dental rubber perforated to grasp it below the collar on it, and the separated tube dressing is wrapped up in the indiarubber sheet.

After-Treatment.

A nurse is engaged to attend to the tube and pump off the fluid sufficiently frequently to keep the dressings dry. If this can be accomplished, the dressings require no change for ten days, after which, as a rule, a small indiarubber tube can be made to take the place of the glass one. I have heard of septic peritonitis resulting from this operation. We in Newcastle have never seen this, and it may be that our free use of antiseptics during the operation and in the dressings is the explanation.

As a rule, the wounds are entirely healed in one month, and no further accumulation of fluid occurs. It need, however, occasion no serious disappointment if the fluid reaccumulates, as some of our most successful cases have required tapping on one or two occasions after their recovery from the operation.

Many successful results have now been recorded from this operation, but I have thought it more fitting to occupy the time you have kindly placed at my disposal in dealing with the general principles involved, than in enlarging upon details which can be better treated by those who may take part in the discussion which I hope will follow.

REFERENCES.

[1] *American Journal of Medical Sciences*, December, 1900. [2] BRITISH MEDICAL JOURNAL, September 19th, 1896. [3] Loc. cit. [4] Cure of Ascites due to Liver Cirrhosis by Operation, *Lancet*, May 27th, 1899. [5] *Lancet*, May 27th, 1899. [6] *Annals of Surgery*, September, 1903.

* The same day my colleague, Mr. Grey Turner, showed a similar case. It is now more than five years since he operated, and the patient is well.

DR. MARIE KJÖLSETH has been awarded a gold medal by the University of Christiania for a dissertation on a pathological subject. She is, we understand, the first woman who has won this distinction.

WE are asked to state that at the meeting of the ninth International Otological Congress, which is to be held in the new buildings of the Medical Department of Harvard University, in Boston, U.S.A., during the week beginning August 12th, 1912, the award of the Lenval, Adam Politzer, and Cozzolino prizes will be made by the International Jury chosen for the purpose. The Lenval and Adam Politzer prizes are offered for the best published work on the anatomy, physiology, and pathology of the organ of hearing; the Cozzolino prize for the best published work on the anatomy and pathology of the organ of hearing, and upon clinical therapeusis. Candidates should communicate with the President of the Jury, Professor Dr. Adam Politzer, 19, Gonzagagasse, Vienna, and should send to him the work offered in competition, at least six months before the date of the opening of the next congress. Should a sufficient number of valuable works be presented in competition, the jury may divide the Lenval Prize and the Politzer prize, thus making five prizes for distribution.

A REVIEW OF RECENT METHODS FOR THE RADICAL CURE OF HERNIA.*

BY

HAROLD H. B. MACLEOD, F.R.C.S.EDIN.,

SURGEON, SALOP INFIRMARY; PRESIDENT OF THE SHROPSHIRE AND MID-WALES BRANCH.

IT was on November 17th, 1883, that the first operation for radical cure was performed at the Salop Infirmary, upon a boy, one W. H., aged 4, from Much Wenlock. In the next year there were four operations, including one upon a young woman aged 21. Ten years later (in 1893) twenty operations were performed, and now it is quite usual to see two or more in a single morning, and it has been said that this procedure is the commonest operation in surgery, except that for removal of post-nasal adenoids.

Early Results.

In 1890, at the request of Mr. Eddowes, then senior surgeon to this infirmary, I collected all the cases operated on here from November, 1883, to November, 1890, and I subsequently extended the list to include all cases up to the end of 1894. The result of this inquiry was communicated to Mr. Rushton Parker of Liverpool, and embodied by him in a paper read at the annual meeting of this Association in London in 1895, and I quote from his paper as follows:

> Out of 81 operations performed at the Salop Infirmary by Mr. William Eddowes and his colleagues, 45 were in 43 children and infants of 12 years old and under:
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> 25 from 6 months to 2 years,
> 10 from 2 years to 4 years,
> 10 from 5 years to 10 years.
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> The only fatal case died from pneumonia, the wound having healed; in none had strangulation existed, and the hernia is not known to have recurred in any. I quite expect that other surgeons will be able to produce reports which, like this one of Mr. Eddowes, are more favourable than my own, and add confirmation to the favour with which I regard herniotomy in children.

So much, then, for our results sixteen years ago in the case of children; what can be said in regard to adults? I regret to say that these were far from satisfactory. Most of the patients replied that they were much better, and that the rupture was now easily controlled by a truss and gave no trouble; others that they were quite cured, and yet others that the operation had failed and that they were as bad as ever. Not very reassuring you will agree, but I hope to show the reason for this, and to tell you that by improved methods of operating on adults the tale is a very different one to-day.

Varieties of Inguinal Hernia.

1. In about 5 per cent. of the so-called congenital type where the sac is large there is no closure at all of the funicular process, which normally becomes obliterated from below. The testes seem to be inside the sac, but are not really so.

2. The funicular process is partly obliterated, but a definite processus vaginalis is present. This is the commonest variety, constituting about 95 per cent. of all hernias in children.

3. "The infantile," where the hernia in its descent pushes a fresh sac before it, inverting the unobliterated portion of the funicular process below and obscuring the diagnosis.

4. The ordinary acquired form.

Etiology.

Mr. Hamilton Russell, now of Melbourne, and formerly house-surgeon at this infirmary, published in the *Lancet* in 1899 a letter which attracted considerable attention at the time, and from which I will briefly quote the most important points:

1. Oblique inguinal hernia is *invariably* caused by the presence of a congenital sac which is provided in nearly every case by a patency in whole or in part of the processus vaginalis.

2. There is no evidence to support the view that congenital weakness of the abdominal wall in the inguinal region is a factor in the causation of inguinal hernia.

3. While actual weakness of the abdominal wall in the inguinal region is frequently met with, and is an occasional cause of recurrence after operation, such weakness is not congenital, but is an acquired weakness due to the existence of the hernia and the prolonged use of a truss.

4. Complete removal of the sac when performed before the abdominal wall has sustained such damage will not be followed by recurrence.

5. The causes of recurrence after operation are:

   (*a*) The above mentioned acquired weakness.
   (*b*) Incomplete removal of sac.
   (*c*) Traumatism the result of a mistaken method of operating.

The acceptance of these views leads to the conclusion that ordinary inguinal and femoral hernias are not ruptures in the sense of being due to strain, but are primarily due to a congenital sac and are impossible without it.

If this be so, it follows that most of the operations formerly practised for the radical cure, which dealt so largely with suturing the canal, are unnecessary, and that those that divide the canal freely to obtain access or to divert the cord are injurious; no doubt these same operations also treat the sac, but such treatment is not so much insisted upon as the repair of the canal and the suturing of the pillars of the ring.

Striking confirmation of the frequent presence of this pre-existing sac has been recently brought forward by Mr. R. W. Murray, and is referred to in Professor Alexis Thomson's *Manual of Surgery*. Mr. Murray made 200 consecutive *post-mortem* examinations upon persons in whom during life there had been no history or evidence of hernia, and in these he found no less than 68 diverticula of the peritoneum, of which 44 were femoral, 22 inguinal, and 2 umbilical, showing clearly that this pre-existing sac is no mere hypothesis.

Having insisted, then, that the sac is pre-existing and is the cause of hernia, it follows that its complete removal will cure the condition, and so it is found in practice.

But it will be asked, Is any one bold enough to act upon this, and is it not necessary in addition to strengthen the canal and to obliterate the rings? To this I answer that I believe such patching is entirely unnecessary, and usually a source of weakness and further trouble, and is always to be avoided except when one is obliged to open the canal in order to deal effectively with adherent omentum or retained testes; then, of course, any damage done to the canal must be repaired by suture; but the sac is the thing.

I had lately a conversation with Mr. Edward Deanesly, of Wolverhampton, upon this subject, and he has kindly placed his most recent figures at my disposal for the purposes of this paper. From November, 1906, to November, 1908, Mr. Deanesly had in his hospital clinic 250 operations for radical cure of inguinal and femoral hernia, and in all save an insignificant proportion the inguinal canal was left absolutely unsutured, and the femoral canal was left open except for a simple pursestring in the fascia lata and pectineus fascia. In perhaps 2 or 3 where the hernia was excessively large or complicated by undescended testis, the external oblique was sutured so as to narrow the external ring. The patients were discharged in ten to twelve days, and returned to work in four weeks. The cases were absolutely unselected, and none wore a truss after operation. This series included all sizes of hernia up to that of a football, and all ages, from 6 months to 60 years.

It is well known that if the operation fails the hernia will again show itself within the first twelve months, so that these figures of 1908 may reasonably be examined and tested for recurrence, and we find that only 9 had recurred, and these have all been cured by a second operation.

Guiding Principles in Operations.

The method of operation used by Mr. Deanesly is that of Professor Kocher of Berne (second method). I think that nothing more need be said to prove that the treatment of the sac is the treatment of hernia, and in order to treat the sac thoroughly great attention must be paid to its neck. The fundus may be cut away at an early stage of the operation if it is much enlarged or likely to interfere with subsequent steps. The neck of the sac is much longer than is often supposed, but it must be clearly separated

* Read before the Shropshire and Mid-Wales Branch of the British Medical Association.

from the cord to its actual junction with the peritoneum—a point which Kocher has shown to be marked by a pad of subperitoneal fat, which forms an outlying spur of the prevesical fat; after being thus freed, it is displaced upwards and outwards by drawing it through an opening in the internal oblique and transversalis muscles at a point ¾ in. above and to the outer side of the internal ring. The whole of the lax peritoneum present in the neighbourhood of the internal ring is thus rendered taut, and there is no trace remaining in the form of dip or dimple.

Kocher formerly recommended that the sac should be laid down over the roof of the inguinal canal and there pressed down into it, as it were, through the roof, and retained by sutures, but this suturing, combined with transfixion and torsion, occasionally led to necrosis of the sac, and has been abandoned in favour of simple removal after dislocation upwards and outwards.

I remember particularly one of my cases in which this necrosis took place, and I quite expected the operation would fail, especially as the man was a repairer of motor cycles, and often had the severe strain of pedalling those unwieldy machines some distance; but I have seen him lately, and am glad to say that he has no hernia.

Mr. Stiles, of the Royal Sick Children's Hospital in Edinburgh, has long discarded all suture of the canal or rings, and I learnt from him that he recently completed a series of 1,000 cases with a mortality of 6—700 of them with a mortality of 2 only, a total mortality of much less than 1 per cent. Results could hardly be better, and would compare favourably with those of the operation of circumcision. The best age for operation is 5 to 6 months, before dentition begins.

Mr. Stiles has given up the use of trusses at the Sick Children's Hospital altogether, being guided to this conclusion mainly by the fact that cases which were apparently cured by truss pressure were those of the congenital type, which were really cured by the natural obliteration of the funicular process occurring from below upwards. That this view is correct is shown by the number of waiting cases which, on being sent for for operation, are found to be already cured.

It may seem difficult sometimes, when dealing with infants, to say positively whether a rupture exists or not; the parent will assure you that a lump does come in the groin, but, on inspection and examination of the two rings, they seem of equal size. If, however, the cord be carefully isolated, it is quite possible to feel in all cases of hernia that something, the empty sac, is present coming down the inguinal canal.

The surgeon must be prepared to find other structures than small intestines and omentum inside a hernia sac. I myself in the last year have met with the Fallopian tube, the caecum with appendix, and the urinary bladder, but such findings do not materially increase the gravity of the operation and are readily dealt with.

Children.

Strangulation is rare in children, and when it occurs it is generally in infants under 1 year. This condition is most frequent on the right side, because it is the caecal herniae that usually become strangulated. Moreover, it must not be thought that irreducibility is a very urgent matter in a young child. There is no hurry about operation, for in them strangulation is a slow process. A dose of chloral and bromide may be given by mouth or rectum and hot fomentations applied to the hernia, the knees being bent over a pillow so as to relax the structures about the external ring, where the tightness is usually greatest, and a delay of twelve hours advised. Failing reduction in this way, it may often be effected under chloroform; but if this with mild manipulation fail, the operation must be performed exactly as in non-strangulated cases.

I would advise that all pr parations for operation be made before taxis under chloroform is resorted to, so that valuable time may not be lost.

A few words may be said about the dressing and the after-treatment. It is necessary to protect the wound in some way, yet ordinary dressings are very difficult to keep clean; dry collodion has been tried, but it does not give free exit to the serum, which must be produced in any wound where the tissues have been much separated and handled. Stiles always uses a paste consisting of iodoform one part, bismuth subnitrate two parts, kept in a solution of 1 to 1,000 mercury perchloride. A piece of gauze is placed over this and a small flannel binder over all as a temporary dressing. When the child is put to bed the temporary dressing is removed, leaving nothing on the wound but the paste. The legs are controlled by clove-hitch bandages applied to the ankles over a layer of lint. Over the body is a small wire cradle, from which hangs a diaphragm of towelling, on to which he micturates. The shoulders are lightly fastened to the mattress by the usual reins of knitted material, and the hands are prevented from coming in contact with the wound by another small draw sheet pinned under the reins and over the cage. A piece of boracic lint is pinned over and under the child's vest, which reaches to about the umbilicus. No sepsis has occurred in connexion with this method of treating the wound in children.

A mattress stitch or two is used to obliterate the deep wound, which is removed on the second day; the skin is sewn with horsehair, which is removed on the sixth or seventh day, and the child is discharged on the eighth or ninth day. It is not necessary that the child should be weaned.

Adults.

In adults the wound is dressed in the usual way with dry gauze and wool, drainage being very seldom employed, and bandaged with a flannel or domette spica 3 inches wide; it is well to bandage the opposite side also, including the two in a St. Andrew's Cross. This serves to support the scrotum, preventing oedema, and rendering the after-treatment much more comfortable.

Finally, I always use an elastic bandage applied in St. Andrew's Cross fashion, as this keeps the edges of the superficial dressing secure and prevents any accidental contamination by involuntary movements of the patient's thighs during the first few hours.

There are, of course, many other forms of abdominal hernia to which I have not referred (one author describes fifteen in all), but it would only lead to confusion if I attempted to include the treatment of these in my brief paper. I will therefore simply say once again that the treatment of all is essentially the same, and that the great underlying principle is to find the neck of the sac and to occlude it thoroughly. You may then do what you please with the other parts, varying the detail according to circumstances, and putting in such supporting and obliterating sutures through canal and rings as your experience may determine.

A CASE OF PERFORATED PEPTIC ULCER OF THE OESOPHAGUS COMPLICATED BY PYOPNEUMOTHORAX.

BY JAMES MILLER, M.D., F.R.C.P.E.,

ASSISTANT PATHOLOGIST TO THE ROYAL INFIRMARY, EDINBURGH.

THE following case is of interest because it is a very typical example, both as regards history and pathological appearances, of a rather rare condition, though one probably more common than is generally believed. The author is indebted to Professor Wyllie for allowing him use of the clinical notes taken by his resident, Dr. Leslie.

History.

W. A., aged 42 years, admitted to Ward 34 on March 18th, 1910, under Professor Wyllie, complaining of pain across the lower part of the chest, worse on the left side, and pains across the back.

Up till the beginning of January, 1910, he was in good health. He had been accustomed to take considerable amounts of alcohol in bouts about every other week for the last eight years. Subsequent to these drinking attacks he suffered from his stomach, being unable to take food and vomiting bile. Since January, 1910, he had suffered from lassitude, uneasiness in the stomach, flatulence and vomiting about an hour after each meal, followed by relief to symptoms. He has been afraid to eat and thus has lost weight considerably. On March 14th, after vomiting his dinner, he went to bed, and has not got up since then. The day before admission, when suffering from severe pains in the chest, he called in a doctor, who diagnosed pleurisy, and recommended his admission to the hospital. During the days that intervened he had been unable to retain anything in his stomach. The vomited food was tinged brown. The patient suffers severely from thirst; he has no difficulty in swallowing, but has some uneasiness in the lower part of the chest, between the ribs where they join the sternum. No

tumour can be made out on palpation, but there is some rigidity of the muscles of the upper part of the abdomen. The respirations are 28 per minute.

He has pain in the chest, both in front to the left side low down and behind across the lower part. Cough not marked.

There is practically no movement of the left side of the chest, except a little at the apex of the lung. Vocal fremitus is absent over the whole of the left side, normal on the right. On percussion a resonant note is obtained all over the chest with just a slight loss of tone at the left base. Over the left side, however, true pulmonary resonance is not obtained. On auscultation, the breath sounds are faint all over the left side of the chest, but are present over the right side. They have the character of normal vesicular breathing, with a slight prolongation of expiration at the right apex. Over the bases, especially the right, there is well-marked friction. Vocal resonance not much affected; on the whole, not quite so good over the left side generally. No Hippocratic succussion tried for, as patient was so ill, but the bell sound test with coins gives a positive result, especially above the bend of the seventh rib space all round the heart.

The blood was examined and showed 14,000 leucocytes. There was no glycogenic reaction. On admission, the temperature was 101°, but it gradually fell to subnormal.

Result.

On March 21st the left pleura was explored; some foul-smelling gas escaped; afterwards pus was obtained and about 25 c.cm. was removed. Next day more pus was removed. The patient vomited at frequent intervals, and died during the afternoon.

A *post-mortem* examination was held on March 23rd, the following observations being made:

Body well developed, but shows some emaciation. Rigidity well marked. The left lung is adherent to the chest wall towards the apex. It is completely collapsed in its lower part, and covered with grey fibrino-purulent exudate. There is a considerable amount of stinking fluid in the left pleura. There are also adhesions at the apex on the right side.

On opening the stomach and duodenum, an ulcer is found just beyond the pylorus in the anterior wall of the duodenum, with a considerable amount of thickening around.

Immediately above the cardiac orifice in the oesophagus there is a large ulcer measuring about 1½ in. in its greatest diameter. There are two perforations in its floor, opening into an abscess cavity in the mediastinum, lined with grey necrotic material communicating with the pleura. The margin of the ulcer is rounded, and the floor is formed by the muscular coat of the œsophagus.

The stomach is dilated. The mucous membrane is swollen, injected in places, and covered with glairy mucus. The pericardial sac contains a small amount of fluid, with flakes of lymph suspended in it. The heart is covered with a layer of recent fibrinous exudate. The left lung is largely collapsed; the apex shows a considerable amount of fibrosis. Lower part covered with fibrinous exudate. There is scarring also at the apex of the right lung, and what appears to be a small bronchiectatic cavity. There is some recent fibrinous exudate at the base. The spleen is somewhat enlarged, firm, and shows chronic perisplenitis. The kidneys are somewhat enlarged, cortex swollen and pale, soft and friable.

Summary of Post-mortem Findings.—Ulcer of lower part of œsophagus perforating into left mediastinum and left pleura. Pyopneumothorax. Old tubercle at both apices. Chronic ulcer of duodenum. Recent fibrinous pericarditis. Cloudy swelling of organs.

According to Tileston[1] (1906), peptic ulcer of the oesophagus was first described by Albers in 1839. Tileston has been able to collect 41 authentic cases of the condition, to which number he adds 3 which came under his own notice.

Ewald[2] (1910) describes 1 case diagnosed by means of the oesophagoscope, and which was cured. Probably, therefore, at least 46 have been recorded up to date, including the author's.

The most typical and constant symptoms of the condition are: Pain, which is severe and comes on immediately after food, the site of the pain being at the lower end of the sternum and a little to the left of it. Pain is also felt between the shoulders. Vomiting is the next most constant symptom. Dysphagia is present in more than half the cases. It is due to reflex spasm of the muscle of the oesophagus from pain, and it is the main diagnostic point between the condition and gastric ulcer. Haematemesis is also a very common symptom. Perforation has occurred in 8 cases—thrice into the right pleural cavity, once into the left (author's case), once into both (in each case with pneumothorax), once each into the aorta, pericardium, and lesser omental sac.

The ulcer is usually single. It may extend into the stomach, and independent ulcers may occur in the stomach or duodenum (author's case). The situation is usually close to the cardiac orifice, and the right postero-lateral wall appears to be the commonest site. The condition is usually found in middle life.

As regards sex, of 45 cases in which the sex was specified 31 were males and 14 females. This preponderance in the male corresponds to what one knows of duodenal ulcer. Healing not infrequently occurs, as in the recent case described by Ewald,[3] and one mentioned by Quincke.[4]

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A CASE OF TYPHOID FEVER COMPLICATED WITH CHOLECYSTITIS.

By JOHN McMILLAN, M.B., CH.B.,

VISITING PHYSICIAN, FEVER HOSPITAL, SHOTTS, LANARKSHIRE.

TYPHOID inflammatory affections of the gall bladder and large biliary passages are described at some length by Curschmann in the Nothnagel Encyclopaedia. He states that typhoid bacilli are almost constantly present in the gall bladder, that gall stones have only been found present in about half of the cases, and that the result of infection varies, in many cases there being no ill effects whatever' while in others inflammation is produced, which may go on to pus formation or ulceration. Distension and slight swelling of the gall bladder has not been uncommon in my experience, but the case about to be described is the first instance in which I have seen any serious conditions arise in the gall bladder. Our hospital records do not show a single case of cholecystitis.

In respect of general literature, fatal forms only seem to have been noted when the condition was first recognized, but Westcott, quoted in Keen's *Surgical Complications*, tabulated 74 cases of typhoid infection of the gall bladder, of which 30 resulted in perforation. Osler mentions 3 cases operated upon at the Johns Hopkins Hospital, and Sir Hector Cameron, in a recent issue of the BRITISH MEDICAL JOURNAL, mentioned a case which he operated on years after the patient had suffered from typhoid fever.

The case here described was that of a married woman aged 23. She was one of a series of cases which occurred in a mining village, where the disease was spread by personal contact. A brother of hers had been removed to the Shotts Fever Hospital on December 15th, 1910, and just before his removal the patient, who was eight months pregnant, admitted having kissed him. Within fourteen days she began to complain of feeling unwell, and on December 31st, 1910, took to bed.

Next day I was consulted, and found her suffering from symptoms suggestive of typhoid fever, including severe frontal headache, high temperature, and furred tongue. A specimen of blood was taken for Widal's reaction, and proved negative, but two days later (January 3rd) another specimen of blood gave a positive reaction, and arrangements were made for removing the patient to hospital.

State on Admission.—The conditions upon admission to hospital, January 5th, 1911, were those of classical typhoid fever, and the case presented no unusual symptoms during the first eight weeks of illness. During the first week of illness the patient was nursed at home, and admitted to hospital about the beginning of the second week of illness, with her temperature ranging from 102° to 103° F.

Progress.—During the third week of illness the oscillations were of the usual type, and the temperature fell by lysis, becoming normal at the end of the third week. On February 6th she gave birth to a healthy female child. Labour was easy, as the child was very small and emaciated, weighing only 4 lb. The temperature rose to 101° F. on the day of confinement, but was down on the following day. The pulse was rather weak. On the following day the patient was rather stronger, and gradually improved. On the third day after being confined, as the breasts became engorged with milk, the child was put to the breast, and continued to suckle along with artificial feeding until February 23rd.

On February 11th the patient was able to get out of bed, and with a gradually increased and more liberal diet she gained strength rapidly.

Treatment.—For the first four weeks in hospital the treatment was of the simplest nature. To the ordinary milk diet was added thin Benger's food, and sanatogen, 1 oz. per day. A dilute sulphuric acid mixture four times a day was also administered. Afterwards strained soup and thin flour gruel was given.

Onset of Cholecystitis.—By the end of the eighth week the patient was considered about fit for discharge, when suddenly, on February 23rd, she felt an acute pain on the right side of the abdomen and vomited about a pint of thick yellow fluid. As the pain was very severe, she was given half a grain of morphine hypodermically in the forenoon, and this was repeated again in the evening, as the pain was again beginning to trouble her. While the pain was severe she perspired freely. Her temperature was subnormal at first, but in the evening rose to 101° F.; there was dullness, tenderness, and resistance on the right side in the region of the gall bladder, the dullness being continuous with the liver dullness, and extending down to the level of the umbilicus. Hot laudanum stupes were applied continuously all day and during the night.

On the following day the temperature was down to 100° F. She had still a good deal of pain and was sick, but did not vomit. On account of the nature of the pain, the faeces were carefully examined for gall stones, but none were found. This condition continued until March 19th, there being severe pain almost daily, which had to be controlled with morphine. The temperature was very irregular, at times being subnormal, when the paroxysms of pain were very severe, then, after a feeling of cold and shivering, rising to 102° or 103° F., and on one occasion to 105° F. She was inclined to be sick and did not take nourishment well and lost flesh, though the swelling seemed to be gradually getting less—indeed, the lower margin on the enlarged gall bladder was now 2 in. higher than on February 24th and 25th.

Operation.—As she seemed to be losing ground and suffering much pain, it was deemed, after consultation with Dr. J. T. Wilson, the County Medical Officer of Health, advisable to open the gall bladder, and the operation was performed by Dr. Peter Paterson, of Glasgow, on March 20th, who opened the gall bladder by a vertical incision through the right rectus muscle. The gall bladder, which was small, firmly adhered to the colon, while its walls were thick and very friable. On opening it, an ounce of thick ochre-like pus escaped, and two gall stones about the size of peas were removed. Drainage was provided by a large rubber tube stitched to the incision in the gall bladder.

Result.—The bile drained away freely at first, but gradually decreased to 1 oz. in the day, upon which the tube was removed. When the tube was removed, on April 2nd, six rounded, rough concretions were found, which were very friable, two being broken in being removed. The further history of the case was uneventful, and on May 24th she was dismissed from hospital feeling fit and well, the wound having healed perfectly. The child was healthy and continued to thrive. The blood when tested six weeks after birth gave the Widal reaction.

The Fluid from the Gall Bladder.—Dr. J. Hume Paterson, who examined specimens from the case at the County Bacteriological Laboratory, furnished reports which may be summarized as follows:

Specimen No. 1 was a mixture of blood and purulent yellow material taken at the time of the operation. Smears prepared from this material and cultures on ordinary agar and McConkey's bile-salt agar plates showed an organism in great numbers that morphologically and culturally was identical with *Bacillus typhosus*. As this was a mixed specimen containing blood from the wound as well as fluid from the gall bladder, and as there was hope of obtaining further specimens, the organism found was not submitted to differential tests with the various carbohydrates, etc., but the patient's blood gave an agglutinating reaction.

Specimen No. 2 was bile fluid draining from the gall bladder. Smears and cultures showed an organism in great numbers that morphologically and culturally was identical with *Bacillus typhosus*. The usual subcultures were made with colonies from the ordinary agar plate, with the result that the organism was found to be *Bacillus typhosus*. Thus a culture in taurocholate broth gave with glucose a slightly acid reaction; with lactose, saccharose, and dulcite, no acidity; with mannite, slight acidity; litmus milk gave a slight acidity, but no coagulation. The patient's blood gave an agglutinating reaction.

Specimen No. 3 was gall stones (5 in number, with several fragments). The whole stones were each about the size of an ordinary pea, pale yellow in colour, with nodular glistening surface. They were readily broken down, being of very soft consistence. Dissolved in hot absolute alcohol, allowed to recrystallize, and examined microscopically, they were found to be composed of cholesterin crystals and mucin. Two of the stones were washed well in absolnte alcohol, and then in sterile water. They were then split open with a sterile knife, and smear preparations made from their centres. These were stained and examined for micro-organisms with negative results.

The more important points in this case might be summarized thus:

1. The presence of almost continuous constipation throughout the whole course of an ordinary typhoid illness.

2. The development of inflammation of the gall bladder during convalescence, about the eighth week of illness.

3. The development of peritonitis in connexion therewith, forming adhesions between the gall bladder and the colon.

4. The presence of *Bacillus typhosus* in pure culture, and

5. The presence of a few gall stones, consisting of cholesterin and mucin.

In conclusion, I wish to express my thanks to Dr. Peter Paterson, the Surgeon, and Dr. J. Hume Paterson, the Bacteriologist, who were associated with me in dealing with the case. Also to Dr. J. T. Wilson, the Medical Officer of Health for Lanarkshire, for much helpful advice, and for permission to publish my notes.

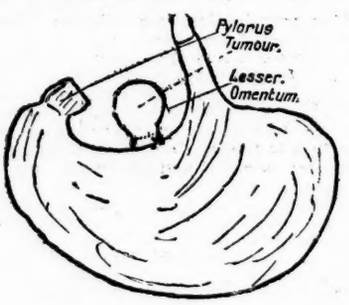
A CASE OF FIBROMYOMA OF THE STOMACH.

BY DOUGLAS GORDON CHEYNE, M.B., CH.B.,
RESIDENT MEDICAL OFFICER, ROYAL WATERLOO HOSPITAL.

THE rarity of the case, of which I here give a few notes, is my excuse for reporting it; taken in conjunction with the case which Mr. W. T. Green, F.R.C.S., published in the BRITISH MEDICAL JOURNAL of October 28th, 1911, its interest is increased

Though resembling Mr. Green's case in general, in detail it was quite different and also wholly unlike any of the other older cases, notes of which were published in the same article.

In the present case the patient appeared almost unaware of the presence of the tumour and made no complaints



therefore one may presume there were no symptoms. Indeed she sought advice in our out-patient department for an entirely different complaint, namely, prolapsus uteri, and it was only by the merest chance that the tumour was discovered at all. In the out-patient department the signs were suggestive of a subperitoneal fibroid detached, or an ovarian cyst with a long pedicle. It was at that time thought that the mass was movable in all directions, but subsequently this proved to be incorrect. She was accordingly admitted into our wards as a gynaecological case.

The patient was a married woman, aged 59, who had had three children and three miscarriages. She had been subject to bleeding from the rectum after defaecation for many years, and had been wearing a ring pessary on account of a prolapsed uterus. The menopause had occurred twelve years before. About a year ago she noticed a small lump in the abdomen, and fancied it had been getting bigger, but it had caused no symptom.

Condition on Admission.—She was a healthy, rather obese woman, with an excellent colour. Had no complaints. Teeth in good condition, tongue clean, appetite good. Bowels regular. Temperature 98°, pulse 80, respirations 25. In the epigastrium, in the middle line, is seen a distinct bulging, which appears to move a little upwards and downwards on respiration. On palpation a firm, smooth, rounded, elastic mass, about the size of a cricket ball, is felt. It permits of considerable movement in a lateral direction, being capable of being drawn over to either lumbar fossae, but does not allow movement in a vertical direction below the level of the umbilicus. It has evidently no connexion with the pelvis. The note obtained on percussion is absolutely flat. Auscultation of the stomach reveals no evidence of dilatation of that organ. Vaginal examination revealed signs of rectocele and cystocele, but otherwise nothing abnormal is found. There were well-marked external haemorrhoids, now in an inflamed condition, which probably accounts for the bleeding on defaecation. The urine was acid, specific gravity 1022; no albumen or sugar; some phosphates.

Diagnosis.—The case was seen soon after admission by Dr. Gow, who decided that, apart from the prolapse, it was not a gynaecological case, and referred it to the surgical side, where she was examined by Mr. Pendlebury, Dr. J. D. Mortimer and myself being present. On that occasion no trace of the tumour, which before had been so obvious, could be found. The next day it reappeared exactly as before, and was again seen by Mr. Pendlebury, who thought it might possibly be an omental cyst, or a pyloric tumour, and decided, subject to the approval of the patient and her friends, to do an exploratory operation. This was readily given, and an anaesthetic was administered on October 28th by Dr. J. D. Mortimer.

Operation.—An incision was made through the rectus muscles in the right hypochondriac region, and the peritoneal cavity opened. The tumour at once presented itself, and was about the size of a cricket ball, and growing from the lesser curvature of the stomach, between the layer of the lesser omentum. The rough sketch given may better explain this. There were no adhesions. There was a short pedicle, along which came the vessels supplying it, arising from the edge of the lesser curvature. An incision was made through the peritoneal surface round the base, and after ligaturing the pedicle the tumour was easily removed by blunt dissection. There was practically no haemorrhage. The cut peritoneal surfaces were united by Lembert sutures. The stomach and other abdominal viscera appeared to be perfectly normal. The abdominal wall was closed in layers. The operation lasted fifteen minutes. There was very little sickness or discomfort afterwards.

Result.—The convalescence was uneventful. Stitches were removed on the eleventh day, and the patient got up on the eighteenth day, and went home on the twentieth day.

The tumour excised weighed 4 oz. Its surface was smooth. It was softish in consistency, and at places almost cystic. The pathological report was as follows:

The tumour has the structure of a fibromyoma, composed of interlacing bundles of smooth muscle cells enclosed in a scanty stroma. It shows some areas of mucoid degeneration, and is in parts infiltrated with leucocytes. At one end of the tumour the appearance to the naked eye suggests the red degeneration so often seen in uterine fibromyoma. It appears to be an encapsuled growth, and is not malignant.

In conclusion, the disappearance of the tumour may be explained by its having been drawn underneath the liver while the stomach was very empty. Its origin, its lack of symptom, and its structure all combine to show how difficult may be the diagnosis of these cases, a difficulty which can only be overcome by an exploratory operation.

I wish to express to Mr. Pendlebury my best thanks for his kind permission to publish these notes.

A METHOD OF TREATING DAMAGED INTESTINE WITHOUT RESECTION.

WITH ILLUSTRATIVE CASES.

BY H. BRUNTON ANGUS, M.S., F.R.C.S.,

HONORARY SURGEON, ROYAL VICTORIA INFIRMARY, NEWCASTLE-ON-TYNE; LECTURER IN SURGERY, UNIVERSITY OF DURHAM.

FREQUENTLY when doing emergency work one meets with intestine which is torn, gangrenous, or perforated over a limited area; or, after separating adhesions, free oozing is so persistent as to necessitate immediate treatment.

In many cases of this kind resection appears to be the only resource, but if the patient is old and feeble, exhausted, or suffering from severe shock, time is an important consideration, and the following simple method will be found most useful:

Where there is a perforation—for example, from a bullet wound—a suture or two of chromicized catgut passing through all the coats approximates the edges of the rent; then with Pagenstecher's thread the adjacent sides of the damaged area of intestine are brought together by means of Lembert suture—either continuous or interrupted—thus enclosing the weak spot.

At first sight it appears as though obstruction would result from the kinking of the bowel, but this complication has not ensued after repeated trials.

The method is so simple, and occupies so short a time as compared with resection and subsequent anastomosis, that I thought it desirable to publish it, together with one or two examples illustrating its application.

For the drawings illustrating Case II I am indebted to Mr. F. C. Pybus, Surgical Registrar at the Royal Victoria Infirmary, Newcastle-on-Tyne.

CASE I.—*Bullet Wounds of the Intestine and Bladder.*

A girl, aged 18 years, was admitted into the Royal Victoria Infirmary on June 25th, 1911, after having been shot with a small saloon rifle from behind. The accident occurred at 4 p.m.

On admission (at 5.15 p.m.) there was a small round wound on the left side of the buttock with inverted and slightly burnt edges. The pulse was 80; temperature, 98.4° F.

On examination there was a little abdominal tenderness and slight abdominal rigidity. Half an hour later she complained of severe abdominal pain, and vomited; the face was pale, the mucous membranes blanched, the pulse 120, feeble, and poor in volume, the pupils dilated. There was marked abdominal rigidity, with general tenderness. A catheter passed into the bladder evacuated a large quantity of bloody urine. On passing a probe into the wound and with a finger in the rectum, the probe was felt to pass into the pelvis.

Operation (at 6.45 p.m.).—Chloroform and open ether were administered, and a median laparotomy below the umbilicus revealed free intestinal contents flooding the whole peritoneal cavity. The intestines were examined, and six irregular perforations with protrusion of the mucous membrane were discovered—three together—in two loops of small intestine, which were lying in the pelvis. The edges of each aperture were drawn together by a single transverse suture passing through all the coats. The damaged areas were now shut off by suturing all around them, approximating the adjacent surfaces of each loop by means of Pagenstecher's thread. The peritoneal cavity was flushed with normal saline at a temperature of 110° F. No hole was felt or seen in the bladder from the peritoneal aspect, so the abdomen was closed, a large drainage tube inserted.

Subsequent Progress.—There was haematuria for a day or two. The patient had a little chest trouble, and the wound suppurated for a while. She made an excellent recovery.

July 22nd.—She left the hospital well; the scar is stretched.

Readmitted August 29th, and her abdominal wound was sutured in layers on account of commencing hernia. At the same time the bullet was extracted under the skin of the right side of the pubes. The wounds now healed by first intention, and the bowels act normally.

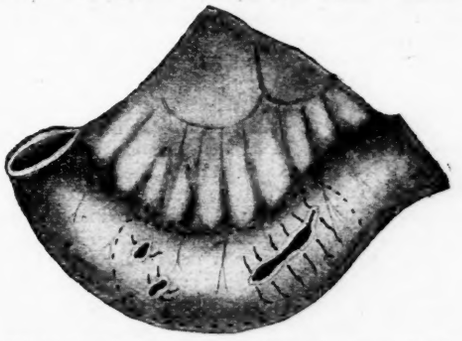
At the second operation the two damaged loops of gut were inspected, and not the slightest trouble was found at the site of operation. The intestinal contents apparently passed through quite freely, the gut on either side of the kink being equally distended.

CASE II.—*Bullet Wounds of the Small Intestine.*

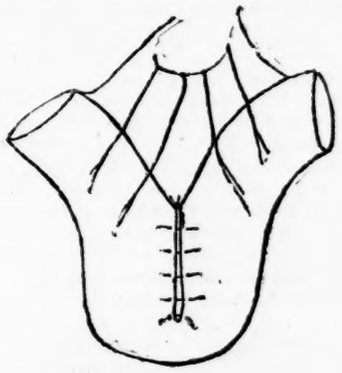
A young man, aged 25, was admitted into the Royal Victoria Infirmary on October 16th, 1911.

History.—When loading a small air-rifle, with the barrel directed towards his abdomen, the trigger went off and the bullet entered his belly. The accident happened at 10.45 a.m.

Operation at 6.30 p.m. (seven and three-quarter hours later). Median laparotomy performed. In the jejunum, 1 ft. away from the duodeno-jejunal junction, a loop of intestine was



found with two perforations. Two feet away from the duodeno-jejunal fold another loop of intestine showed three wounds, one large and jagged, and two smaller ones. The apertures were drawn together by sutures passing through all coats, then the damaged areas were covered by approximating the adjacent surfaces of the bowel by means of Pagenstecher's thread.



End view of anastomo.

These sutures only penetrated peritoneal and muscular coats. The peritoneum was irrigated with normal saline, and the abdomen closed.

Result.—Uninterrupted recovery, bowels act normally. The patient returned seven weeks after the operation in perfect health. The accompanying drawings give a good idea of the nature of the injury, and shows the method of treatment.

CASE III.—*Intestinal Obstruction from Band with Adhesions.*
A woman, aged 58, was admitted into the Royal Victoria Infirmary on July 26th, 1910.

History.—She had had attacks of pain in the abdomen and vomiting since July 10th, bowels moved only by enemata. Five years previously she was in bed for ten months with pain and vomiting.

On Admission.—She looked ill and emaciated; temperature 100.2° F., pulse 120. There was no abdominal distension; tenderness present over the right iliac fossa and rigidity of the lower half of the right rectus. Nothing felt in pelvis.

Operation.—August 3rd, 1910. An oblique incision was made over the right iliac fossa; the appendix was found to be normal. Down in the right side of the pelvis the small bowel was obstructed by a band adherent to the pelvic brim. This was ligatured and the gut released. On pulling up the small intestine from the pelvis about 3 ft of it presented thickened, oedematous, and hypertrophied walls. At one point a tight simple stricture was seen as if a band had compressed it. This narrow stricture was divided longitudinally and enteroplasty was done. Further along (about 4 in.) the gut presented a raw and profusely bleeding area, which had been adherent in the pelvis. The bleeding was so persistent that it was necessary to approximate the two sides of the bowel with Pagenstecher thread, so as to shut in the raw area. This decidedly kinked the bowel, so much so that the Surgical Registrar thought we should have further obstruction.

Result.—The patient got quite well and the bowels act normally.

SOLID CARBON DIOXIDE IN THE TREATMENT OF HAEMORRHOIDS.

BY H. GRAEME ANDERSON, M.B., CH.B., F.R.C.S.,
SURGICAL REGISTRAR AND PATHOLOGIST TO THE METROPOLITAN HOSPITAL; PATHOLOGIST TO ST. MARK'S HOSPITAL.

HAEMORRHOIDS and naevi have an almost identical histological structure, and, having had excellent results in the treatment of the latter by means of solid carbon dioxide, I determined to try it in the former. Both naevi and haemorrhoids show congeries of dilated vessels in a connective tissue basis; but the histological appearances of haemorrhoids differ much from each other, the differences depending on their duration and the irritation, mechanical and bacterial, to which they have been exposed. Thus it is difficult to demonstrate by means of the microscope any selective action on the part of the solid CO_2. Its action depends on its extremely low freezing point (– 79° C.). Morton has advanced the ingenious theory that the tissues are cooled and become rigid and the individual cells, with their semifluid contents, become hard and firm; now water and water-containing substances undergo expansion progressively as the temperature falls below 4° C., and this expansion following on rigidity causes fracture of the cell wall and injury to the nucleus. I have not examined haemorrhoidal tissue immediately after freezing, but have done so after fourteen days. Then the changes seen are inflammatory—effusion of blood, round cell infiltration, etc. In one case there was distinct ulceration where the snow had been applied.

The snow is easily prepared from the gas cylinder; a crayon $\frac{3}{4}$ in. in diameter is used. The patient is prepared in the ordinary way, gas is given, and the anaesthesia prolonged for a little by means of ether, the whole operation being over in from three to five minutes. The sphincters are lightly stretched, and the piles brought down by means of pressure forceps. The crayon is then applied with fairly firm pressure for twenty seconds to each haemorrhoid in turn, white saucer-like depressions being produced where the crayon has been applied. The frozen tissues are returned within the anus, and, as no bleeding occurs, a tube is not required, but a simple gauze dressing completes the procedure. No pain should be experienced; the bowels can be opened on the third day and the patient allowed up after that time.

I have now treated 5 cases of piles in this way.

CASE I.—L. L., aged 28, tailor, admitted to Metropolitan Hospital August 30th, 1910, with haemorrhoids of thirteen years' duration. He had haemorrhage, some prolapse, slight pain and constipation. On September 4th solid CO_2 was applied to four uncomplicated haemorrhoids—twenty seconds to each. He had no pain, slept well afterwards, and had no difficulty with micturition. Bowels were opened on the third day, and he was allowed up at the end of a week. The anal canal was examined each day and felt quite smooth. He was dismissed on September 17th and was seen again in the out-patient department, when he was free from symptoms.

CASE II.—H. K., aged 20, tailor, admitted to Metropolitan Hospital on September 25th, 1910, with haemorrhoids of ten months' duration. He had haemorrhage at intervals, slight protrusion, constipation, but no pain. On September 27th three small uncomplicated haemorrhoids were treated by CO_2, as in Case I. He had no pain, but the catheter had to be used for a day or two. He was dismissed on October 8th and seen again in December, when he was free from symptoms.

CASE III.—A. M., aged 29, housewife, admitted to Metropolitan Hospital on September 13th with haemorrhoids of twelve years' duration. She had prolapse, haemorrhage, and pain. On September 16th solid CO_2 was applied to three large internal haemorrhoids for twenty seconds each. There was also present a ring of oedematous external piles. She had no pain afterwards, slept well, and did not require the catheter. The bowels acted on the fourth day, and no prolapse occurred, but on rectal examination the haemorrhoids could be felt as before. All went well for another week, and then prolapse again occurred. On September 30th I did a ligature operation and examined the haemorrhoidal tissue microscopically, but, as stated before, the changes were those of an inflammatory nature.

CASE IV.—Female, admitted to St. Mark's Hospital with haemorrhoids of some years' duration. October 12th, 1910, three large internal haemorrhoids were treated for thirty seconds each with solid CO_2. But the haemorrhoids prolapsed again on the third day, and they were removed by Sir F. C. Wallis a week later by the Whitehead method. I cut sections of the tissue, which showed superficial ulceration where the snow had been applied.

CASE V.—Male, admitted to St. Mark's Hospital suffering from haemorrhoids. He had prolapse and haemorrhage. Three uncomplicated piles were found, and I applied snow to the two lateral piles for twenty seconds each whilst Mr. Gordon Watson, who had charge of the case, ligatured the perineal pile. The patient had no further prolapse or haemorrhage, and was dismissed well.

This treatment by means of solid CO_2 is only suitable for small, uncomplicated internal haemorrhoids, as in Cases I and II. With the good results obtained in the first two cases I believed I had found a simple remedy for the cure of piles, but, as the other cases show, it is only a remedy to be applied in selected cases.

A CASE OF RUPTURED LIVER AND RIGHT KIDNEY: OPERATION: RECOVERY.

BY
GATHORNE R. GIRDLESTONE, M.B.OXON., F.R.C.S.,
OSWESTRY.

ON August 26th, 1911, Thomas D., aged 14, received a severe blow in the right loin from a falling rope bridge at a quarry. He was bending forward when struck.

He was brought up four miles to Oswestry, and was seen by Dr. W. A. Lewis, who sent him straight to the Cottage Hospital, where I saw him at once. His appearance showed extreme shock; his pulse was only 76, small and regular; his pupils widely dilated. There was no external bruising, but his right loin and the right side of the abdomen were very tender and rigid. No abdominal dullness was detected. He was made warm in bed and closely watched.

Two hours later his colour was better, his pulse 88, no change in local signs was discovered. An hour later pulse 96, and shortly after it rose to 104. Exploration was decided on, although no other change was detected.

First Operation.

Chloroform was administered by my partner, Dr. J. H. Crofton. On opening the abdomen through the upper outer part of the right rectus sheath, much free blood and a loose triangular piece of liver about the size of a walnut presented. The anterior part of the liver was intact, and I did not at the first moment find the liver rupture, but on passing my hand into the right loin I felt the kidney with its inner border split and ragged. I then found that the liver in relation with the upper pole of the kidney was widely ruptured. There was a rapid flow of blood from this region, and the boy's condition was becoming very bad. I slightly enlarged my incision by cutting transversely outwards, rapidly shelled out the kidney, from which the whole pelvis, ureter, and vessels had been completely torn away, felt for the renal vessels and put a long-handled clamp on them, thus stopping all the haemorrhage except a slight oozing. I put a large gauze plug in the liver tear.

By this time the patient's collapse was extreme, and I had to cover the wound temporarily and infuse a pint of saline into the median basilic vein, leaving the cannula in place. The patient's condition was still extremely bad; the only hope lay in getting him back to bed as soon as possible. I left the clamp on the renal vessels and sewed the wound up with four stitches, finally infusing another pint of saline.

After-History.

The boy was returned to bed with little hope; his colour was ghastly, his breathing feeble and gasping; his pulse was 110, very soft, but much improved by the saline infusion. I did not give him more saline, as I feared pulmonary oedema or exudation. As a last resort I gave him strychnine miv, ether mv, hypodermically. He was devotedly nursed. Strychnine mij, ether miij, was given again in four hours, and half a pint of saline was given per rectum later as often as he would retain it.

Next morning he was a little better, but extremely weak; pulse 108. In view of the fact that I had not been able to sponge out the blood, which must have been contaminated with renal and hepatic exudation, I feared peritonitis, so gave him calomel gr. v, followed by mag. sulph. 5j hourly; an enema at 4 p.m. was without result. He had further saline rectal injections, and in the night strychnine and ether were again given. Next morning the calomel and mag. sulph. were repeated with good result.

On August 29th he seemed better; the bowels were opened again; the general condition of the abdomen was good. The exudation, which had been very copious, was less.

On August 30th he was better; the pulse varied from 86 to 92.

Second Operation.

C.E. was given by Dr. Crofton. I reopened the wound, sponged out sero-sanguineous fluid from the loin, then, with my finger on the vessels, gently removed the clamp; no bleeding occurred. I replugged the liver rent, put a cigarette drain down to the region, and sutured the wound in layers with silk and, for the skin, salmon gut. The peritoneum had retracted far, and was very difficult to bring together.

The general peritoneal cavity had not been shut off by adhesions; it was clean and dry; the extravasated blood and fluid had entirely disappeared; there was no peritonitis.

The patient stood the second operation most satisfactorily. The sinus healed in a few weeks, and the boy left the hospital on October 25th.

I saw him on December 7th. He was strong and well; the scar was perfectly sound.

The following points seem to me very striking:

1. The severity of the injury: (*a*) The kidney was ruptured completely away from its pelvis and vessels and partially split; (*b*) the liver was extensively torn, and a portion completely detached.

2. The fact that the renal vessels were only bleeding comparatively slowly, suggesting wonderfully efficient re action.

3. The slowness of the pulse at the time of admission and the slowness of its rise. I think that this may be accounted for by rupture of the suprarenal with absorption of its secretion.

4. The capability and activity of the peritoneum in dealing with a considerable quantity of blood and exudation so completely in four days.

ON ACETYL-SALICYLIC ACID, WITH SPECIAL REFERENCE TO ITS VALUE IN TYPHOID FEVER.

By GRAHAM CHAMBERS, B.A., M.B.,

ASSOCIATE PROFESSOR OF CLINICAL MEDICINE, UNIVERSITY OF TORONTO; PHYSICIAN, TORONTO GENERAL HOSPITAL.

ACETYL-SALICYLIC acid is formed from salicylic acid,

$$C_6H_4\begin{matrix}OH\\COOH,\end{matrix}$$

by replacing the hydrogen atom of the hydroxyl group by the radicle acetyl, CH_3CO. The chemical formula of acetyl-salicylic acid is therefore

$$C_6H_4\begin{matrix}OOCCH_3\\COOH.\end{matrix}$$

The aspirin is protected.

Many of the physical and chemical properties of acetyl-salicylic acid are very similar to those of salicylic acid. Like the latter, it is a solid, crystalline, very slightly soluble in water, and freely soluble in ether and alcohol. It also resembles salicylic acid in being a monobasic acid, but differs from the latter in being less stable. For instance, it is decomposed by boiling with an alkali or a mineral acid into a salicylate or salicylic acid. Martindale and Westcott state that heating the drug in presence of moisture decomposes it into salicylic acid, and that the solution in water effected by means of sodium bicarbonate contains sodium salicylate and sodium acetate. They also state that when the drug is administered by the mouth it passes unchanged through the stomach, decomposing only on reaching the alkaline intestinal juices. Cushny holds a similar view, for he states that the systemic action of the drug is dependent upon its decomposition in the intestine into sodium salicylate. According to these authors, therefore, the actions of salicylic acid and acetyl-salicylic acid, administered by the mouth, are the same, except with regard to their local actions in the stomach. This, I believe, is incorrect; and I shall report observations in this paper which show that the pharmacological action of the two drugs, after absorption, are not the same, and that acetyl-salicylic acid is absorbed, at least in part, before decomposition occurs. Solutions of the drug, which should be similar to those which occur after the drug is administered by the mouth, were tested for salicylic acid, making use of a solution of ferric chloride, which gives a violet colour with salicylic acid, but not with acetyl-salicylic acid. This is the usual qualitative test for a salicylic acid, and it was used, in addition, to determine quantitatively, by a colorimetric method, the amount of salicylic acid or sodium salicylate formed from acetyl-salicylic acid.

Summary of Chemical Experiments.

1. A solution of the drug in cold water gives no violet colour with ferric chloride.
2. A solution of the drug in boiling water gives a violet colour with ferric chloride.
3. If one dissolves the drug in cold water, and then boils, the intensity of the ferric chloride reaction increases for several minutes.
4. The drug, dissolved in water, at the temperature of the body, gradually decomposes, the amount decomposed varying with the length of time for at least twelve hours. A colorimetric method showed that the amount of acetyl-salicylic acid decomposed in twelve hours was four times greater than that in three, and that very little was decomposed in half an hour.
5. The drug dissolves in a solution of baking soda or in a 1 per cent. solution of sodium carbonate without decomposing into a salicylate. If either of these solutions is kept at the temperature of the body decomposition gradually occurs, but very little is decomposed at the end of half an hour.
6. The drug dissolves in a 0.2 per cent. solution of hydrochloric acid without decomposition. If the solution is kept at the temperature of the body decomposition gradually takes place.

These experiments indicated that the decomposition of acetyl-salicylic acid in a medium such as the gastric or intestinal juice is a gradual process, and that thirty to forty minutes after the drug is exhibited, at which time its pharmacological action is frequently evident, very little of the drug is decomposed. I believe that this is true, because I can show that the analgesic and antipyretic actions of acetyl-salicylic acid are more potent than those of salicylic acid, which could not be the case if acetyl-salicylic acid were decomposed by the intestinal juice, as Martindale and Westcott, Cushny, and others state. I should judge, therefore, that as a rule the greater part of acetyl-salicylic acid is absorbed undecomposed.

Pharmacology.

The principal difference in the pharmacological action of the two drugs—salicylic acid and acetyl-salicylic acid—is due probably to the presence in the latter of the radicle acetyl, because the introduction of this group into a compound as a rule augments both the analgesic and antipyretic actions. For instance, acetanilide, which is the acetyl derivative of aniline, and acet-phenetidine (phenacetine), which is the acetyl derivative of phenetidine, are more analgesic and antipyretic in character than aniline and phenetidine respectively.

The Analgesic Action.

Nowadays the analgesic property of acetyl-salicylic acid is fully recognized, and it is extensively used in the relief of pain. It has the advantage over acetanilide, antipyrin, and phenacetine of being less injurious to the blood and other tissues of the body.

The principal indications for the exhibition of acetyl-salicylic acid as an analgesic are the relief of the milder forms of pain, such as that of sore throat, tonsillitis, myalgia, pleurisy, etc. My surgical colleagues tell me that it is very valuable in the relief of pain of diseases of bone and joints, and I have found it, in doses of 5 grains every three hours, of considerable value in the relief of pain of malignant disease.

The Antipyretic Action.

Salicylic acid may be said to act as an antipyretic in two ways, namely, by its action as an internal antiseptic, and by its action on the heat centres, sweat apparatus and other parts which enter into the regulation of the temperature of the body. In acute rheumatism the lowering of the temperature after the exhibition of large doses of salicylic acid is probably partly due to its antiseptic action, because in many cases there is an abrupt fall of temperature to the normal or subnormal, very similar to that of a crisis of an acute infection; usually this is followed by very little rise of temperature after the administration of the drug is discontinued. On the other hand, there are cases of fever in which the administration of salicylic acid produces sweating and a transient fall in the temperature, which, as soon as the drug is discontinued, rises to its former height. The antipyretic action of salicylic acid in this kind of case is no doubt dependent on the action of the drug on the heat-regulating apparatus.

Acetyl-salicylic acid also may be said to act as an antipyretic in two ways, similar to those of salicylic acid; but it is usually not administered in doses sufficient to exercise its internal antiseptic action, and the antipyretic action of the drug must therefore be due to the action of the drug on the heat-regulating apparatus (sweat glands, heat centres, etc.), which property is present to a much greater extent than in the case of salicylic acid.

The following observations afford evidence that acetyl-salicylic acid is a more potent antipyretic than salicylic acid:

To 10 patients with typhoid fever of moderate severity we gave 6 grains of sodium salicylate every four hours, and carefully observed the course of the temperature, etc. The skin did not become moist, and we were unable to detect any result from the administration of the drug. After five days the salicylate was replaced by acetyl-salicylic acid exhibited in 3-grain doses every four hours. The result of the change was almost immediately apparent. The skin became moist, and the temperature was lowered; the degree of sweating was variable. In some cases it was very slight, while in others it was profuse. In cases in which there was little sign of action the dose was increased to 4 or 5 grains.

Acetyl-salicylic Acid in Typhoid Fever.

In the prognosis of typhoid fever the course of the fever is an important consideration. A very high temperature, say above 104° F. every evening, maintained for one or two weeks, and unaccompanied by considerable morning remissions, should be considered a danger signal. On the other hand, a low or comparatively low course suggests a favourable outcome. Indeed, in my experience, the mortality in the latter cases has been practically *nil*. Again, most physicians agree that in the treatment of typhoid fever it is essential to keep the fever under control, because high fever in itself, irrespective of its cause, is harmful. The question whether cold baths or cold spongings are superior to antipyretic drugs, etc., cannot be discussed here, but in private practice, and sometimes in a hospital, either from want of proper facilities or insufficient aid in nursing, it not infrequently happens that hydrotherapeutic measures prove insufficient to control the fever. The question then arises whether it is better to allow the fever to run its high course or call to use antipyretic drugs. Two years ago I decided in favour of the latter view, because it was found that the exhibition of acetyl-salicylic acid in small doses, 3 to 5 grains every four hours, combined with tepid or hot sponging, was generally an effective means of lowering the temperature. The exhibition of the drug in this dosage to typhoid patients does not alter the blood pressure or produce any appreciable ill effects. The skin remains moist, and in some cases there is profuse sweating. The greatest effect on the temperature is obtained by sponging the patient about half an hour after the administration of a dose of the drug, in this way combining the antipyretic actions of the medicinal and hydrotherapeutic agents. It is probable that other beneficial effects are derived from the exhibition of acetyl-salicylic acid. The increase in the amount of perspiration should diminish the toxaemia, although it is very difficult to estimate how much endotoxin is excreted with the sweat. As a clinical observation I may mention that the patients were all of the opinion that they felt better during a moderate degree of perspiration, and to me they seemed clearer mentally and more willing to carry out other parts of the treatment, such as the drinking of water, etc.

I have been especially impressed with the marked diaphoretic and antipyretic actions of the drug. Three grains every four hours had frequently considerable effect, and in most cases 5 grains at the same periods produced profuse diaphoresis. In only one case were we compelled to increase the dose above 5 grains. In two cases—one treated during September, 1909, and the other during October, 1910—5 grains every four hours appeared almost too active, as the temperature charts show a fall in temperature of 9° and 10° respectively during the exhibition of the drug; there was no untoward effect during the fall of the temperature, but in the case of antipyretics which act as acetyl-salicylic acid does, one does not like to see such precipitous action. In giving acetyl-salicylic acid to typhoid patients, it is desirable, therefore, to commence with a dosage of 3 grains every four hours; if this should not be sufficient, the quantity should be gradually increased until the desired effect has been obtained. The reason why acetyl-salicylic acid is more effective as an antipyretic in typhoid fever than in most other fevers is, probably, that the fever of typhoid fever is frequently labile in character. This theory also affords an explanation of the undoubted value of hydrotherapy in the treatment of the disease, because it is found that the more readily the temperature can be reduced by a bath or sponge the better the prognosis.

The Mode of Administration.

When a drug is given dissolved in water, its action is usually quickly manifest, because it almost immediately passes into the intestine and is absorbed This principle is of special importance to the exhibition of acetyl-salicylic acid, because the shorter the stay in the gastro-intestinal tract the less the decomposition of the drug. The drug should therefore never be administered in tablet form, but in solution. It is only slightly soluble in cold water; it is freely soluble in water containing sodium bicarbonate; the application of heat to a solution in water tends to decompose the drug.

PASSAGE OF A CAST OF THE BLADDER PER URETHRAM.

BY

JEHAN M. BARLET, M.D.BRUX., M.R.C.S., L.R.C.P.

THE patient in the following case, a married woman aged 26, first sent for me on November 2nd, 1911, and stated that for two or three days she had had severe pains in the lower part of the abdomen, which were like labour pains; she had also been losing large quantities of blood, with clots, and had passed a large mass, which she said was like a piece of flesh.

State on Examination.

Bimanually, the uterus was found to be enlarged to about the size of a three months pregnancy; the os was patulous, and admitted the tip of the index finger, and she was losing freely.

Treatment.

She stated that her periods had been perfectly regular, but thinking she had had a partial miscarriage, and that the placenta had been retained, I dilated the cervix with Hegar's dilators to No. 16, and I then inserted my finger into the uterus, and, to my surprise, I came upon a fetus enclosed in the membranes. This being the case, I did not rupture the membranes, but after washing out the vagina with cyllin, I plugged the vagina with iodoform gauze. The latter I removed the next day.

Result.

The patient went on exceedingly well; all the pains and haemorrhage ceased. No miscarriage took place, and on November 12th she got up perfectly well.

Further Development.

Next day, however, she complained of pain on passing water, and also of frequency of micturition—this occurring about every twenty minutes. In consequence, I put her on a mixture containing potass. bicarb., urotropine, tinct. belladonna, syr. limonis and chloroform, which did not improve her condition, except that the pains diminished somewhat.

On November 15th she got up at 2 a.m. to pass her water, and found that she was unable to do so, though she had a pressing desire. She continued to strain for twenty minutes, then had intense pain, and finally passed a fair quantity of water, together with a good deal of blood, and a mass which was seemingly rolled up, and in circumference about the size of a thumb.

On examining this mass I found it to be gritty, and, on closer investigation, came to the conclusion that it was the mucous membrane of the bladder in which were embedded numberless calculi of small size. I sent the specimen to be examined microscopically, and received the following report:

The specimen was a sloughy-looking thick membrane, with irregular corrugated surface, roughly triangular in shape, measuring 3¼ in. across and 3 in. in the other direction.

The whole was permeated by concretions of varying size, and composed chiefly of phosphates and urates.

The reaction to litmus was strongly alkaline.

The specimen had to be decalcified in order to obtain a section.

Microscopically it is seen to be composed of very necrotic tissue—so necrotic, in fact, that no cell elements can be recognized.

The membrane appears, however, to be composed of two layers, one of which was probably muscular.

Scattered throughout are small spaces which look at first like tubular glands from which the epithelium has been shed, but on closer inspection it seems more probable that they are merely spaces occupied by crystals of salts which have been dissolved out in the process of decalcification.

There is no histological indication as to the origin of this cast, but in view of the nature of the mineral deposits, the configuration of the specimen (bladder), and the history of the case, there can be little doubt that it comes from the bladder.

The report on the urine was as follows:

Reaction, acid; specific gravity, 1015; albumen, a fair amount; blood, a small amount; sugar, absent.

Microscopy of centrifugalized deposit:

This contains a small amount of pus and blood, with some young vesical cells and granulation cells.

No renal elements have been found.

Bacteria are not very numerous, and are mixed, but consist mainly of Gram-staining bacilli of two kinds, and unusual in the bladder.

There are also some staphylococci of large size.

The *B. coli communis* is not present.

I venture to publish this case owing to two unusual features about it: first, that a dilatation of the cervix sufficient to allow of the index finger being introduced into the uterus was not followed by a miscarriage; and secondly, the circumstance of a passage of a cast of the bladder studded with calculi.

I have been unable to find any literature bearing upon the latter fact, and should be glad if any readers could supply a reason for its occurrence.

I have had the specimen mounted, and shall be very pleased to show it to any one who desires to see it.

I may add that the patient made a good recovery, with the exception that for a little time she experienced inability to hold her water.

UNDER the will of the late Mr. James Law Perrin, a tobacco manufacturer of Bristol, the Royal Ear Hospital, Soho, and the General Hospital, the Royal Infirmary, the Hospital for Women, the Eye Hospital, and the Dispensary in Bristol, as also the Swansea Hospital, each receives a bequest of £500.

THE receipts for 1911 of the Metropolitan Hospital Saturday Fund exceeded by £2,371 the amount collected in any previous year, reaching a total of £37,065. This sum does not include the amounts received by the Distribution and Surgical Appliance Committees in respect of payments made towards the cost of the benefits supplied. These amounted to £8,456, so that the total for the year was £45,521, as against £42,229 in 1910. The number of benefits granted rose correspondingly, reaching 63,361, as compared with 59,737 in the preceding twelve months.

THE CORRECTION OF ERRORS OF REFRACTION FOR MICROSCOPE WORK.

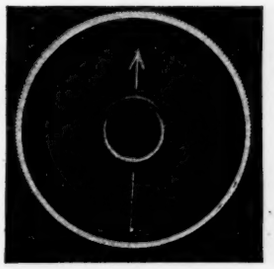
BY

LIEUT.-COL. SIR WILLIAM B. LEISHMAN, M.B., F.R.S., R.A.M.C.,

PROFESSOR OF PATHOLOGY, ROYAL ARMY MEDICAL COLLEGE.

THE eyestrain which not infrequently results from prolonged use of the microscope, especially when working with high powers and artificial light, is often so great as to cause considerable discomfort and headache, and may even lead to the abandonment of microscope work, except for brief examinations. In many cases this trouble is caused by errors of refraction, more particularly by some degree of astigmatism. If this astigmatism is considerable, the microscopist is practically certain, in these days, to be aware of it, and to possess glasses which correct his particular error, but if it is small it may never be detected until advancing years lead him to consult an oculist as to his first pair of presbyopic glasses. In either case, when he attempts to work at his microscope with spectacles or pince-nez *in situ*, he is certain to find them so uncomfortable and inconvenient that, sooner or later, he discards them, and trusts once more to his unaided vision and his powers of accommodation, with the frequent result that continuous work becomes increasingly difficult and the effects of eyestrain more conspicuous.

The small device here illustrated has been designed with a view to correcting the error of refraction without employing spectacles. It is so obvious and simple that it is very probable that something similar may have been described and used long ere this, but, since the writer has been unable to discover that this is the case, it appears worth while, for the sake of others similarly situated, to describe the ocular cap which he has had made for his own use. The increased definition which has resulted from the use of this cap is unmistakable, and there has also been a marked lessening of the feeling of strain which used to result from long hours of high-power work.



No lengthy description is needed, the principle being merely that the lens necessary to correct the error of refraction of the eye commonly used is fitted accurately into the centre of an aluminium carrier, so constructed as to form a cap which may be placed over the microscope ocular. In the case of a lens with cylindrical correction for astigmatic error the vertical meridian is permanently marked on the carrier by means of an arrow, as shown in the illustration. As most workers employ oculars of the same maker, the external diameter of which is approximately the same, the cap may be made to fit them all by arranging to have the internal diameter adjusted to fit the largest ocular used.

The photograph has been taken from the cap made to the writer's design by Messrs. Cary and Co., 7, Pall Mall.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

TORTICOLLIS IN ACUTE RHEUMATISM.

R. T., aged 12, was admitted under my care on December 14th, 1911, with acute rheumatism. He had been ill five weeks, and the joint trouble, which began in the left ankle, had spread to the knees, shoulders and elbows. A month before admission his neck became twisted and remained so; when we saw him his head was bent towards the right shoulder, the chin being pointed to the left. He cried with pain when attempts were made to straighten it. In addition there was endocarditis with a double aortic murmur, but the boy had never been ill before in his life. I ordered him to lie flat on the bed without any pillows; his neck was

smeared with methyl-salicylate ointment and he was given small doses of sodium salicylate. Two days later the spasm was almost gone, and at the present date (January 8th) he has quite recovered from everything except the heart lesion.

In spite of more than forty years' experience I have never before met with this complication, yet so strange are coincidences that there is another case of acute rheumatism at the present time in the General Hospital who presents the same symptom. It is not as a rule mentioned in our textbooks or encyclopaedias of medicine, and the only reference to it which I have been able to find is in the textbook of the *Practice of Medicine* by Dr. James M. Anders of Philadelphia. He says on page 1104: "In a case of my own, a man of 23, it followed an attack of acute articular rheumatism and was associated with high arterial tension"; this is under the heading of Torticollis, and so far as I have been able to discover it is not usually included among the symptoms or complications of acute rheumatism.

Birmingham. ROBERT SAUNDBY.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

ROYAL NAVAL HOSPITAL, PLYMOUTH.

INTUSSUSCEPTION CAUSED BY CANCER OF INTESTINE.

(Under the care of Deputy Surgeon-General W. EAMES, R.N.)

MR. J. C., aged 31, artificer engineer, was admitted into hospital on July 19th, 1911, with a history of having been placed on the sick list on July 5th, 1911, suffering from diarrhoea, colic, and tenesmus, which, despite medicinal and dietetic treatment, was only partially relieved. There were some blood clots per anum.

The patient complained of tenderness in the left iliac fossa, where on examination the parietes were resistant and there was dullness on percussion. A sausage swelling was found in this region, evidently in connexion with the bowel. Above this a mass of faeces had collected; this latter was relieved by an enema, but the tumour and tenderness continued, and the motions continued liquid and scanty, with some tenesmus.

The patient's temperature had reached 100° F. at night for the first week, and he complained of flatulence with occasional vomiting after taking food.

On admission the patient looked ill and wasted, and complained of the symptoms noted above, and on examination of the abdomen a well defined indurated but movable tumour could be felt on a level with, but to the inner side of, the left anterior superior spine of the ilium; the tumour was tender to the touch. Some diarrhoea, stools mucoid with some blood clots.

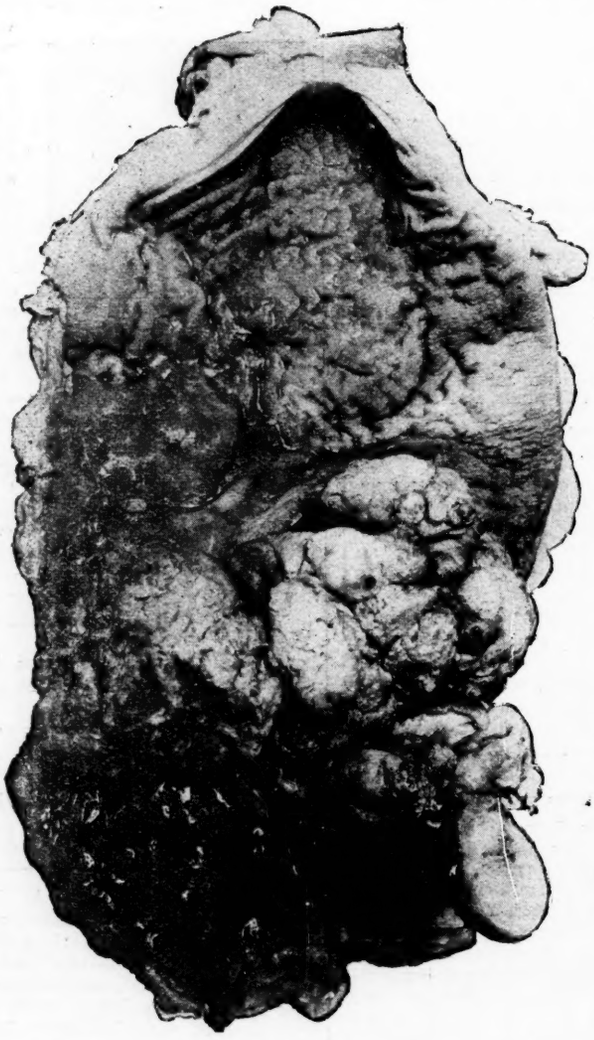
The patient was given morphine gr. ¼ hypodermically, a warm solution of boric acid administered as an enema morning and evening, and pil. opii gr. ¼ ter in die.

On July 22nd the patient was placed under gas and ether and a rectal examination made, with a negative result. No mass could be reached nor pelvic glands felt.

On July 24th, with the assistance of Surgeon L. Warren I performed laparotomy through the outer edge of the left rectus, and on a level with the anterior superior spine of the ilium.

On examination of the intestine, an indurated and sausage-shaped mass was felt in the descending colon, about 4 inches above the sigmoid flexure, which on being brought to the surface was found to be dilated and thickened intestine, containing in its lumen a large indurated and lobular mass which had caused a very firm intussusception collar of bowel involved, being very congested and softened, and was very easily perforated by the finger in attempting to stretch the adhesions.

Intestinal clamps were then placed on the bowel above and below the mass, and the intervening portion of bowel with its contents to the extent of 6 inches removed by resection, and end-to-end junction made. The abdominal wall was closed by through-and-through sutures of silkworm gut, and a large drainage tube inserted in the lower angle of the wound.



The patient stood the operation fairly well and was treated directly after operation by subcutaneous saline infusion until in all 66 ounces had been absorbed.

On examination of the intestine removed, there was found to be a firmly fixed intussusception caused by a large indurated papillomatous mass, growing with a broad base from the mucous and submucous coat of the bowel, which is shown in the photograph herewith attached. Microscopic section shows well marked columnar-celled carcinoma.

With the exception of being troubled with flatulence (which was relieved by the flatus tube) the subsequent progress of the case has been most satisfactory.

On July 28th an enema of ol. oliv. was administered and mist. alba 1 oz. every four hours, resulting in the bowels being opened three times without pain, the stools being solid and without any trace of blood.

The abdominal wound has healed, and the patient is steadily advancing in health and strength.

The accompanying photograph was kindly taken for me by sick berth attendant Davies, a member of the operating theatre staff of this hospital.

Reports of Societies.

ROYAL SOCIETY OF MEDICINE.

SURGICAL SECTION.

Tuesday, January 9th, 1912.

Mr. CLINTON T. DENT, President, in the Chair.

The Talma-Morison Operation.

MR. RUTHERFORD MORISON read a paper on the Talma-Morison operation, which will be found at page 113 of this issue.

In the discussion which followed, Dr. HALE WHITE said that for the most part he was in agreement with the views expressed, and more especially in regard to the statement that suitable cases were rare. The six cases that he himself could recall were all exceptional ones. Cirrhosis, he thought, was caused by some poison—usually alcohol—and the condition could be compared to that of granular kidney. Some signs present were not due to the direct effect of the cirrhosis—for example, swelling of the feet, which was not due to pressure, the rise of temperature, and certain nervous symptoms. In fact, the patients usually died in a state of coma. Half the cases were diagnosed in the *post-mortem* room, and of the others less than a half had cirrhosis. Ascites often developed very rapidly, even with a slight degree of cirrhosis, and these cases soon died and were unfavourable for surgical treatment. In short, owing to the occurrence of toxic symptoms, and the fact that not above a fourth of all cases of cirrhosis showed ascites, the number of cases suitable for operation was extremely small. In uncomplicated cases of cirrhosis death supervened in two months on an average; and if the patient survived several tappings, the ascites was due to chronic peritonitis. An operation producing a collateral circulation was liable to prove fatal in much the same way as the formation of an Eck's fistula in dogs. In view of the present diminution in the amount of alcohol consumed and the rarity of suitable cases, the operation, he thought, would die out.

Mr. W. G. SPENCER thought such an event extremely desirable, as in most cases the operation was partly exploratory in nature. He recalled several cases in which the diagnosis proved erroneous and the patient was cured either of papillomatous ovaries, an adherent appendix, pelvic peritonitis, or chronic peritonitis produced by an old duodenal ulcer. Still, hypertrophic cases remained cured of their ascites for a long time. On Dr. de Havilland Hall's advice he performed the Talma-Morison operation five years previously on a case of hypertrophic cirrhosis and there had been no recurrence, and a patient of Dr. Murrell's with Banti's disease had been relieved for eighteen months. In some intractable cases he found the Talma-Morison operation insufficient, and amongst the operations he had performed was that of inserting a glass spool between the peritoneum and the abdominal parietes.

Dr. ROLLESTON was in favour of the operation in selected cases, though the amount of collateral circulation it produced was very small when compared with that produced by Nature. The good results obtained were due to the collateral circulation carrying off the excess of blood from the liver, thus allowing the liver cells to hypertrophy and to continue their normal function.

Dr. ESSEX WYNTER deemed most of the symptoms of cirrhosis to be due to the fluid starvation of the body, as all the fluids were rapidly absorbed and turned out as ascites. The toxic element might be reduced by the French method of withdrawing a portion of the ascitic fluid and injecting it under the skin—the procedure known as auto-serotherapy. The Talma-Morison operation differed from those that had been performed on his cases by Mr. Sampson Handley, in that it reduced the congestion instead of draining the ascites. The main difficulty experienced was that the endothelium proliferated so rapidly that the cavity into which the fluid drained became simply a peritoneal pocket.

Mr. SAMPSON HANDLEY suggested that the quickest way of determining what was the best operation would be for each surgeon to practise his own method and no other. He agreed with Dr. Hale White that the drainage operations were of no use in the acute cases. The success obtained by the Talma-Morison operation was probably due to the drainage taking place along the insertion of the omentum. He himself effected drainage either by the femoral canal or by the insertion of long silk strands. He had performed the latter operation with success two years ago; he had also turned the saphenous vein into the abdominal cavity, but the valves proved to be insufficiently competent, and the patient bled into the peritoneal cavity.

Dr. PARKES WEBER said his attention had been drawn to the subject by a case examined *post mortem* in which the ascites had been cured by frequent tapping and the formation of numerous adhesions. Four of his cases had been operated on by Mr. Michels with complete success. With regard to the question of operative treatment other than simple tapping, he divided cases of cirrhosis into two classes. The first contained patients who for some reason (for instance, the presence of perihepatitis, perisplenitis, and extreme spontaneous omental adhesions) had the collateral circulation well established, and did not readily develop ascites, but were specially liable to haematemesis from dilated oesophageal or gastric veins, the liver was generally decidedly enlarged in this group of cases. The second class contained patients with a poor collateral circulation who developed ascites early. The main object of omentopexy should be to convert Class 1 into Class 2. In many cases there was no ground for subdividing them into those due to cirrhosis and those due to chronic localized peritonitis, because many cases of cirrhosis had chronic localized peritonitis.

Mr. L. A. DUNN (on behalf of Dr. Sinclair White) recorded 19 cases in which the Talma-Morison operation had been performed; there were 5 deaths (3 from anuria, 1 from haemorrhage, and 1 from peritonitis). Of the remaining 14 cases 3 died within twelve months and 2 others required tapping before a cure was effected.

Mr. WARING said the operation he performed for ascites was that of dissecting out a pocket between the rectus and its sheath and then inserting a large portion of the omentum into it and stitching the omentum down in a few places so as not to constrict it. Ascites was usually the terminal symptom, and the operation was only justifiable if the patient could bear it.

Mr. G. H. MAKINS mentioned that of the 5 cases in which he had operated 4 had been tapped several times before. The operations that he performed were those of omentopexy and of stitching the liver to the diaphragm. In his opinion the operation was justifiable in suitable cases.

Mr. RUTHERFORD MORISON, in reply, stated that his operation originated from a discussion that he had with Dr. Drummond in the *post-mortem* room. During it Dr. Drummond opined that the ascites was due to mechanical obstruction, and he (Mr. Rutherford Morison) said if that were the case he could cure the condition by operation.

LIVERPOOL MEDICAL INSTITUTION.

Thursday, January 11th, 1912.

Dr. T. R. BRADSHAW, President, in the Chair.

Heath's Operation.

MR. ADAIR DIGHTON, in a note on the rational treatment of chronic suppurative otitis media, described such treatment as immediate performance of Heath's conservative mastoid operation in every case which was uncomplicated by labyrinthine suppuration when first seen. Only when the labyrinth was suppurating was any form of radical operation justifiable. He had found that when the cases were treated by Heath's method the hearing was restored almost to normal in as many as 75 per cent., and reported cases in proof of this. In one case the patient, at first unable to hear the watch on contact, had improved after the operation so much that he could hear the watch at 17 in., the average normal for that watch. Mr. T. GUTHRIE said that the so-called Heath's operation was in principle identical with that introduced by Küster in 1879, and had been abandoned both by him and other otologists as a routine operation for chronic disease. For suitable cases, however, it was a good operation, but such cases were a small minority. It was a matter of common knowledge that in large numbers of cases of chronic suppurative disease healing took place after such measures as the removal

of adenoids and various forms of intrameatal treatment. Mr. E. Malcolm Stockdale emphasized the importance of distinguishing sharply between acute and chronic cases, and agreed with Mr. Guthrie as to the importance of removing adenoids if present. When the mastoid antrum communicated freely with air or marrow cells, mastoiditis ensued early and required a post-aural operation, and in such cases the speaker performed the conservative mastoid operation. When the mastoid antrum had a firm bony wall and was small a post-aural operation was only likely to become necessary in neglected cases, and then the radical or complete post-aural operation was called for. Mr. Hugh E. Jones congratulated Mr. Dighton on his results, but thought it incorrect to assume that the antrum was always diseased in suppurative otitis media; in genuinely chronic cases the real bone disease was generally in the tympanum. He also did not agree with the statement that the radical mastoid operation always destroyed the hearing power; the result in that respect, whatever operation was performed, depended on the condition of the essential organs before operation. In reply, Mr. Adair Dighton pointed out that Heath's operation was not the same as that which Mr. Guthrie had ascribed to Küster.

Gastro-duodenal Ulceration.

Mr. Keith Monsarrat, in a paper on the diagnosis and treatment of gastro-duodenal ulceration, analysed a series of 50 consecutive cases of simple affections of the stomach which he had submitted to operation. The series included 18 cases of gastric ulcer not at the pylorus, 11 cases of duodenal ulcer, 15 cases of pyloric and duodenal stenosis, and 4 cases of gastric dilatation without stenosis. Mr. F. T. Paul said he was not in favour of excising ulcers of the stomach, and did not consider gastro-enterostomy very satisfactory for ulcers far removed from the pyloric region; on the other hand, pyloric and duodenal ulcers and stenosis were most satisfactorily treated by this operation. Mr. Newbolt considered that the diagnosis between gall stones and gastro-duodenal ulcer was often most difficult, and had met with a combination of the two conditions. He believed that a good number of people died directly from haemorrhage from gastric and duodenal ulcers, although one was led to believe that this was rarely the case. He performed the posterior no-loop operation, but was not in favour of performing this operation when closing a perforated duodenal ulcer, preferring to do it later if required. Mr. Arthur Evans emphasized the frequency and danger of duodenal ulcers. He had been called upon to operate no less than seven times within the last twelve months for the condition. He questioned the desirability of doing gastro-enterostomy at the time in addition to closing the perforation and invagination of the ulcer. Dr. Tinne called attention to the great similarity between cases of Henoch's purpura and gastric ulcer with sudden symptoms of perforation. In both there were haematemesis, sudden violent abdominal pain, and to all appearances the classical symptoms of perforation. It was not till the following day that the purpuric spots about the joints made their appearance and gave the diagnosis.

EDINBURGH OBSTETRICAL SOCIETY.

Wednesday, January 10th, 1912.

Dr. Haig Ferguson, President, in the Chair.

Pyosalpinx in the Puerperium.

The President, in a note on a case of pyosalpinx successfully treated by abdominal section during the puerperium, said that the majority of such cases were classed as pelvic cellulitis and operation was delayed till an abscess had formed. Many cases of cellulitis starting high in the pelvis were due to tubal infection, and in such early operation was advisable. The infection might begin before labour and be exacerbated by it, or might first make its appearance during the puerperium. The former group was more local and more amenable to treatment, while the latter was an incident of a more generalized infection. The height of the swelling in the broad ligament was important in diagnosis. If it was high up to begin with, or high at any time, it was probably tubal; if it started low down and spread upward and outward, it probably resulted from a cervical laceration. A tubal swelling was difficult to differentiate from a small ovarian cyst that had been bruised or twisted during labour. Operation should, if possible, be delayed till the more acute signs abated, but one should not wait indefinitely for the pus to become sterile. Dr. Barbour said that a swelling high up in the broad ligament was not necessarily tubal. Many cases of simple cellulitis started high up, and spread along the round ligament to the abdominal wall. On the other hand, tubal abscesses tended to open into the bowel. Dr. Lackie said that in the case to which the President had referred the tube was swollen and acutely congested, and contained one drop of pus. After its removal the symptoms at once disappeared. Dr. Haultain said there should not be much hesitation in opening the abdomen during the puerperium. He agreed that the height of the swelling was helpful in diagnosing its tubal origin, but its mobility was much more significant. With a mobile tumour situated high in the pelvis, and a high temperature in the puerperium, he would operate at once. Dr. Young referred to a case in which pyosalpinx developed after a two months' abortion. Though the patient had symptoms indicating a spreading infection, the pus was sterile. Dr. Watson described a case of double gonococcal pyosalpinx in which the acute symptoms came on ten days after labour. Dr. Brewis said that the majority of cases of pyosalpinx occurring after labour recovered without operation. When interference was necessary, in early cases an abdominal operation was preferable, in older cases nine out of ten should be opened from below.

The Free Martin.

Dr. Berry Hart read a communication on Numan, a veterinarian and comparative anatomist of Utrecht, and a forgotten observer on the free martin, whose atlas and views he described. A real hermaphrodite condition, he added, was not to be found amongst mammals. From the present-day knowledge of Mendelism, it could be said that the free martin was one of twins, of which one was a potent bull, and the other defective. Into the latter were segregated the non-potent organs of the opposite sex. No instance of a similar condition in female twins had yet been discovered. In man a pseudo-hermaphrodite might arise from a single ovum.

MEDICAL SOCIETY OF LONDON.

X-ray Diagnosis of Tuberculosis.

At a meeting on January 8th, Dr. Mitchell Bruce, President, in the chair, Dr. G. Harrison Orton, in a paper on the *X-ray diagnosis of pulmonary tuberculosis*, said that the movement of the diaphragm was restricted on the affected side or sides, this restriction being as a rule in the lower part of the excursion. This fact, to which Dr. Francis Williams had been first to draw attention, was admitted by most if not all observers. Nevertheless, there was a great difference of opinion as to the value of that sign, the stage of the disease at which it appeared, and its constancy. In the speaker's opinion, it appeared at a very early stage of the disease, and was a very valuable sign when present. Careful measurement to detect it was sometimes required, and it could not be observed in all cases. Possibly, moreover, it was present in all cases at a certain stage of the disease, but might have passed off in some before the case came under observation. Some interesting observations on the point had been published by Dr. David Lawson, who examined with *x* rays a series of patients first when the disease was active and again after they had begun a course of treatment (hill climbing, etc.), and arrest had been secured. The result suggested that limitation of movement corresponded with the period of activity of the disease. In the speaker's own view, there could be little doubt that the diaphragm movements did vary with the stage of the disease, and that no doubt accounted for many of the discrepancies of opinion as to the value of that sign. Such limitation of movement was part of Nature's means of procuring rest for the inflamed lung, while later on, if the disease had become arrested, and provided the destruction of lung tissue was not too considerable, the diaphragm took on so to speak a compensatory movement, in order to enable the remaining healthy lung to do the extra work required of it. In some cases a peculiar jerky movement of the diaphragm on the affected side might be a more marked feature than limitation; it was very characteristic to any

one who had seen it, but difficult to describe, and often associated with so-called "cog-wheel" respiration at one or other apex. There were other alterations in the movements and in the shape of the shadow of the diaphragm, but he had hardly time to say more than that all might give valuable information in certain cases. Some of those alterations were no doubt the result of adhesions, but he felt confident that the limitation he had described was not in the majority of cases due to adhesions, but was evidence of loss of function.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

A Health Grant.

AT a meeting on January 12th, Professor A. BOSTOCK HILL, President, in the chair, Dr. WILLIAM BUTLER read a paper dealing with the formerly existing epidemic grant and the relationship of school attendance to the requirements of health. In its course he suggested the institution of a health grant which would comprehend not merely the claims arising out of the procedure for dealing with epidemics, but out of all other considerations bearing on the health of school children. A proportion of such grant sufficient at least to cover the maximum loss due to interference with school attendance arising out of health considerations should be apportioned for that purpose and should be paid only where the Board of Education approved of the arrangements made for dealing with communicable diseases. During the discussion which followed Dr. J. TUBB-THOMAS expressed approval of Dr. Butler's proposal, and referred to the many administrative difficulties connected with the epidemic grant. Dr. SIDNEY DAVIES spoke of the harm done by teachers and attendance officers urging children to school whether well enough to go or not. Dr. BYGOTT advised the abolition of school prizes for regular attendance, as they resulted in children attending school in an unfit state. Dr. HOWARTH advocated the payment of the grant on general and not on individual grounds. Dr. W. A. BOND and Dr. R. DUDFIELD had both found the epidemic grant extremely useful, and Dr. CLEMENTS urged its reinstatement. Dr. FRANKLIN PARSONS regretted that the grant had been withdrawn at such an inopportune time, and just when systematic medical inspection had been introduced, by means of which the difficulties had been reduced of ascertaining whether a child was really ill. Dr. CALDWELL SMITH disapproved of paying teachers according to the number of attendances, and pointed out that in Scotland they were paid fixed salaries. Dr. JAMES KERR considered that schools had not such an influence upon epidemics as was at one time supposed. The epidemic grant had the effect of preventing children being crowded into schools when they should be at home. Dr. E. H. T. NASH approved of Dr. Butler's proposal, for there was no probability of the old grant being reintroduced. Dr. GERARD TAYLOR feared that with a health grant they might be penalizing a school for no fault of its own. The PRESIDENT did not think the health grant would be suitable for rural districts, though he approved of the proposal for towns and large urban areas.

BRIGHTON AND SUSSEX MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on January 4th, Mr. T. H. IONIDES, President, in the chair, Mr. H. H. TAYLOR showed a man of 35 who complained that his sight had been failing recently. In the left eye vision was $\frac{6}{6}$, in the right $\frac{6}{36}$. The right disc was distinctly white, with clean cut edges, and normal vessels. The left was pale, but not atrophied. Perimetric examination showed restricted temporal field in the right eye, and no central vision at all; in the left, temporal hemiopia. The pupils were very contracted, there was no tremor or ataxia, and the knee-jerks were normal. There was no sign of acromegaly, and *x* rays showed no enlargement of the sella turcica. Dr. D. HALL read notes and showed photographs of a case of *Henoch's purpura* in a boy aged 15. It began with pyrexia and general pains, the eruption appeared the next day on the limbs; gastro-intestinal symptoms followed a day later. At the height of the attack about a dozen stools with some blood in them were passed each day. After some months' treatment, mainly dietetic and symptomatic, the boy left Brighton, having made an incomplete recovery. Dr. L. A. PARRY, in a paper on cases of *Urinary calculi*, advocated the suprapubic operation in boys, unless the operator had had very considerable experience of lithotrity. In women, dilatation of the urethra and extraction of the stone was the ideal procedure, it was available for stones up to about 1½ in. in diameter. He referred to a case of a stone in the female bladder which had formed round a hairpin used for the purpose of procuring abortion. The sharp ends of the pin, which were not covered by the stone, were seized with Spencer Wells forceps and the stone easily withdrawn. A case of stone in the urethra which gave a negative result with an *x* ray photograph, but was detected by means of the cystoscope, and subsequently removed, was also recorded.

UNITED SERVICES MEDICAL SOCIETY.

AT a meeting on January 10th, Major E. B. WAGGETT, R.A.M.C.(T.), President, in the chair, Lieutenant-Colonel C. H. BURTCHAELL, R.A.M.C., delivered a lecture illustrated by magic lantern slides on *The Medical Service with Lord Methuen's Force* during the advance on Kimberley in 1899, with reference to the modern organization of the medical service." In the course of it he compared the organization of field ambulances with that of the bearer companies and field hospitals replaced by them. He suggested as the only essential differences the facts that the former are now divisional units, that the bearer and hospital *personnel* now form part of one unit which is divisible into three parts, and that, while there is an increased number of stretchers and stretcher bearers under the new arrangement, the *personnel* available for dressing stations and so-called hospital purposes is practically the same as formerly in relation to the strength of troops, one tent subdivision of a field ambulance being almost identical with half a field hospital. At the battle of Belmont the Principal Medical Officer was present at the staff reconnaissance, and thus made acquainted with the plan of action and the ground he was able to select places for the dressing stations, etc., and to forecast the arrangements for succour of the wounded much more effectively than if he had had to rely on second-hand information. At the Modder River the medical units were following close behind the troops when the enemy unexpectedly opened a heavy fire. This determined the position of the dressing stations, which were located just out of range of the enemy's guns or in the nearest protected ground available. Ambulance wagons were unable to reach the regimental aid posts, where wounded were collected, until after nightfall, when the enemy withdrew. At the battle of Magersfontein the field hospitals accompanying the troops were held in reserve during the first stage of the engagement and did not open until late in the day, when they moved up to the sites of the dressing stations formed by the bearer companies. One field hospital—that is, the equivalent of two tent subdivisions of a field ambulance—remained at Modder River, four miles distant, and there received and entrained over 600 wounded for Orange River and Cape Town. At Orange River difficulties arose because there was no organization like the present clearing hospital available at that place.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on January 5th, Mr. MCADAM ECCLES, President, in the chair, the following were among the exhibits:—The PRESIDENT: A case of *Transposition of viscera* in a man. The transposition was complete, and included the attachment of the mesentery. The patient had come for treatment for vomiting and haematemesis, and had a posterior gastro-jejunostomy performed, and during the operation it was possible to demonstrate the completeness of the transposition; the man was right-handed. Mr. W. E. FRY: A patient with *Two big toes on one foot*. Dr. GRAINGER STEWART: (1) A case of *Myotonia atrophica* in a male aged 39. The wasting involved the sterno-mastoids, biceps and triceps, forearm muscles and slightly the small hand muscles, also the thigh muscles and muscles below the knee. The patient was unable to

close his eyes tightly or to smile. (2) A case of *Hand tremor* on sustained voluntary movement in a male aged 12. The hand affected was the right. A history of headache and vomiting and the presence of optic neuritis made clear the existence of intracranial pressure. (3) A case of *Bilateral involuntary movements* in a male aged 9½. This patient was a seven-months child, had made no attempt to use his hands until the age of 3, and was unable to walk until aged 7. He taught himself to write and feed himself with his toes before he learnt to walk. The involuntary movements of the hands and face, first noticed at the age of 4, had gradually increased. There was no spasticity and no fits, and sensation was unimpaired. Dr. F. G. CROOKSHANK (for Dr. BERNSTEIN): A case of *Cretinism* with a goitrous mother. The child was born in Ealing, the mother in Bethesda in Wales, where endemic goitre was said to occur. In the Swiss valleys the endemic cretins are born of goitrous parents.

Reviews.

CONDUCT AND ITS DISORDERS.

IN the preface to one of his most recent works, *Conduct and its Disorders, biologically considered*,[1] Dr. MERCIER describes as curious the fact that there is not in existence any comprehensive study of conduct as a whole, any general view of the field of human activity. He points to the fact that whilst ethics, or conduct as right and wrong, has been studied for millenniums, and the actual conduct of men in concrete affairs has for millenniums been described in history, "of conduct as a whole," to quote one of his characteristic sentences, "of what it is; of its nature; its varieties and kinds; of their relations to each other; of its vagaries and disorders, no book treats; no study exists." Yet, as he himself says, "Conduct is Action in pursuit of Ends." It is thus coextensive with the whole of purposive action of every kind of every individual from birth to death, and it is therefore not surprising that a task of such magnitude has not been attempted. If no book treats of it, it is probable that this is because no book could do so successfully, and we venture to suggest that when Dr. Mercier says that "the psychiatric physician, whose function it is to treat disorders of conduct, not only makes no systematic study of conduct, but denies that such a study is desirable, even if he admits such a study is possible," is not correctly interpreting the attitude of most psychiatric physicians. However this may be, our doubts as to the feasibleness of such an endeavour remain unchanged after reading this book. Even Dr. Mercier, with his encyclopaedic information, his philosophic faculty of seeing the One in the Many and thus laying bare the concealed relations of apparently disparate phenomena, his power of ruthless logic and rare mastery over words, has been unable to give more than a general and somewhat mechanical and artificial classification of the principal forms of conduct. Needless to say, many parts of the book are deeply interesting; its arguments are ingenious and its teaching eminently sound; but this is not because of the conception of the theme, but because of the conceptions of its author.

The book is designedly a study "praxiology"—or the systematic knowledge of conduct as a whole—from the biological point of view, and the possible criticism that its author regards man too much as a zoological specimen is thus at once put out of court.

It is, perhaps, time to give an outline of Dr. Mercier's division of his subject. As conduct is action in pursuit of ends, actions are treated in Book I and conduct in Book II. Action is treated in successive chapters according to whether it is spontaneous or elicited, abundant or scanty, instinctive or reasoned, self-indulgent or restrained, impulsive or deliberate, novel, habitual or automatic, original or imitative, crude or elaborate, work or play, and skilful or unskilful. Powerfully reminiscent of Herbert Spencer's teaching, these chapters are admirable. In Book II, conduct, after an opening chapter on purposes or ends, is divided, first, into the three great departments of (*a*) that which subserves the conservation of the individual, (*b*) that which subserves the conservation of the community, and (*c*) that which provides for the continuance of the race. Each of these again has its subdivisions—primary, secondary, and so on. Parenthetically it may be remarked that in the chapter on self-conservative conduct Dr. Mercier discusses food and drink and, at some length, inebriety. As is well known, there is a pronounced tendency at present among those who wish to prevent habitual drunkenness to regard inebriety as a disease. Nothing can be clearer or more convincing than Dr. Mercier's expressed views on this matter. Regarding inebriety as an alteration of the ratio of self-control to desire for alcoholic intoxication, he agrees that it is a constitutional peculiarity, acquired or inborn. When acquired, he rightly says, it would be straining the meaning of words to call it a disease; when inborn the question becomes one of nomenclature.

> But there are cogent reasons why the term disease should not be strained so as to cover inebriety. By disease is commonly understood a state of things for which the diseased person is not responsible, and which he cannot alter by any effort of will. But this is not the case with inebriety. If the desire for drink can be increased by indulgence and self-control diminished by lack of exercise, equally the reverse effect can be produced by voluntary effort. . . . It is erroneous and disastrous to imply, by calling inebriety a disease, that it is to be accepted with fatalistic resignation, and that the inebriate need make no effort to mend his ways.

Self-conservative conduct is naturally followed by "Social Conduct" with its numerous subdivisions, and under the heading of the influence on conduct of the estimation of others—ambition, pride, vanity, conceit—there is many a shrewd thrust. The sanctions of morality are in similar fashion traced to the general recognition, instinctive or other, that certain conduct is socially or racially disadvantageous or advantageous as the case may be. There is, perhaps, nothing new in these, or, indeed, in most of the biological explanations advanced for the origin and fundamental nature of the modes of conduct analysed, but the pith and epigram in which they are expressed make them well worthy of reading. Under social-racial conduct the interesting question of why in the female unchastity should be more reprobated than in the male is discussed, and Dr. Mercier adds to the ordinary explanation that male lapses meet with far milder reprobation because they do not introduce bastards into the family by also attributing it to the long prevalence of polygamy and concubinage, from which male infidelity is but a step; that is, that male chastity is of recent growth in the march of civilization and hence less esteemed. Doubtless, also, Dr. Mercier is right when he says, in discussing "courtship," that the part of the male is "to court, to pursue, to possess, to control, to protect, to love, while that of the female is more passive"; but it seems a little fanciful to suggest that "this distinction rests, no doubt, upon the fundamental difference of the male and female elements—the sperm and the germ. The first is locomotor, the second is non-locomotor." Surely, however, in modern society it is the woman who pursues, and is successful only when she persuades the man that he is not pursued.

The above example illustrates a characteristic feature of this book—the constant endeavour to refer particular modes and conduct to their primitive paleogenetic origin. Sometimes these appear to be too far-fetched—as, for example, when agoraphobia is regarded as an atavistic phenomenon, a resurgence of a primitive instinct, inherited from arboreal man, to take refuge in tree tops and elude his carnivorous foes by leaping from bough to bough, from tree to tree. Near to trees, then, arboreal man was safe; and to-day the agoraphobic feels safe, or safe from his fear, when he is near some tall vertical object. The opposite condition of claustrophobia is similarly referred to a later period, when man was a cave dweller. One might naturally have imagined that the descendant of the cave dweller would have been the agoraphobic and have felt safe from his fear indoors. Not so, according to Dr. Mercier—the enforced dwelling in caves, holes in the ground, hollow trees, etc., bred a sense of confinement and an irresistible desire to get out into the open, to-day reproduced by the claustrophobic. This example may fitly close this review. It illustrates the constant and justifiable endeavour of the author to refer conduct to its biological origin. If the term "biology" be accepted in its widest sense as "the science of life," no more need be said; but if it be used for the study of organic beings, to

[1] *Conduct and its Disorders*. By Charles Mercier, M.D., F.R.C.P., F.R.C.S. London: Macmillan. 1911. (Demy 8vo, p. 377. 10s. 6d. net.)

the deliberate exclusion of all psychological explanations, then much, and perhaps the greater, part of human conduct must be shut out.

THE INSURANCE ACT.

THE first of the promised books containing detailed discussion of the National Insurance Act from the legal point of view to attain publication is, we believe, the volume by Mr. ORME CLARKE, of the Inner Temple, entitled *The National Insurance Act, 1911*.[2] The general arrangement of the book follows that customary in such treatises. An introductory summary, divided into ten chapters and occupying some seventy pages of rather large type, is followed by a print of the Act, with explanatory notes on the Sections and Schedules. In the course of the notes various legal cases are referred to, and a table of these with full references is given. In the introductory summary the six cardinal principles of the British Medical Association are set out. In commenting on the absence from the bill of the income limit of £2, Mr. Orme Clarke observes:

No income limit is fixed by the Act, but by Sec. 15 (3) provision is made for regulations of the Insurance Commissioners to authorize Insurance Committees to require any person whose income exceeds a limit to be fixed by the Committee to make his own arrangements for receiving medical attendance and treatment (including medicines and appliances). In this connexion it may be pointed out that there is no existing legal machinery for finding out the incomes of any persons whose income is less than £160 a-year, that figure being the limit below which incomes are not assessable to income tax.

With regard to the free choice of doctor, Mr. Orme Clarke appears to see difficulty mainly in relation to the distribution of those insured persons not otherwise provided for (Section 15, (2) (*d*)) who have been refused by the practitioner whom they may have selected. The words are "distribution amongst, and so far as practicable under arrangements made by, the several practitioners whose names are on the list." Mr. Orme Clarke thinks that the words "so far as practicable" do not govern "distribution amongst," and puts the following case:

A., B., and C. are the practitioners on the list in a given area; D., an insured person in that area, has selected A. as his practitioner, but A. has refused to have him. Similarly, B. and C. refuse to have him, and A., B., C. are unable to arrange between themselves who is to take D. D. would be one of the persons who would have to be distributed, and, in the absence of arrangement between A., B., and C., it is submitted that D.'s right to select would revive, and he would be allocated to A., who, in fact, had previously refused to have him.

The author submits further that the exercise by a practitioner of his right to be placed on the list must carry with it the possibility of the abrogation of his right to refuse to treat any given patient. Mr. Orme Clarke, however, raises the questions, (1) whether in such a case the practitioner is not entitled to persist in his refusal to treat the person in question, and (2), if so, whether the Commissioners may use their powers under the proviso and suspend the person's right to medical benefit. As to the administration of medical benefit by the local Insurance Committees the author says, "medical benefit is to be administered by Insurance Committees," but he does not discuss the effect of Section 15 (4), the "Harmsworth Amendment," further than to say that in these cases the Insurance Committee may contribute the whole or part of such amount towards the expenses of the system or organization in question. As to the amount of medical remuneration, he observes:

No figure is fixed by the Act for the remuneration of medical practitioners. A bargain will have to be made between the Insurance Committees and the medical practitioners on the lines of Sec. 15. The amount of money available for providing medical benefit will be, in the case of members of an approved society, such sum as may be agreed between the society and the Insurance Committees, or, in default of agreement, such sum as the Insurance Commissioners may determine. Sec. 15 (6). And, in the case of deposit contributors, such sum as the Insurance Committees may, with the consent of the Insurance Commissioners, determine. Sec. 42 (*d*). If these sums are insufficient, power is given to county and borough councils and the Treasury to sanction the estimates for cost of medical benefit, and, if they do sanction them, they are thereupon obliged to pay one-half each of the estimated excess. Sec. 15 (7) and (8).

The Solicitor-General has written an introduction to the volume, in the course of which he says:

. . It is easy enough to say that we are in favour of "the principle" of National Insurance; and indeed those who really understand what the necessary principles of National Insurance are, are thereby committed to much which they may otherwise be tempted to repudiate. But, after all, the essence of a scheme such as this lies in its details, and as a guide to those details Mr. Clarke's book will, I am convinced, prove useful to many.

Sir John Simon goes on to urge that the two parts of the Bill—Part I, National Health Insurance, and Part II, Unemployment Insurance—should be brought into operation at the same time, since the two parts of the scheme ought to work side by side, and that in particular unemployment insurance should not be set up in advance of sickness insurance, as otherwise "the man who loses work through ill-health will find it to his advantage to declare that he is perfectly well." In reply to the criticism that more time should have been found for the consideration of the scheme before it was passed into law, he asserts that few modern Acts of Parliament have occupied more time in discussion and that certainly no modern Act of Parliament has been more widely discussed, and continues:

True it is that there will be many improvements to be effected. We have already amended the Old Age Pensions Act once, and may have to do so further. Amendments of the National Insurance Act are quite certain, as soon as we know where the shoe pinches; but before you can know where the shoe pinches, you have to make up your mind *to begin to wear it*.

In these sentences we find the only taint of politics in the volume. Mr. Orme Clarke himself appears to be strictly legal and impartial. He has done his work well and accurately so far as we have been able to test it, and the book will be very useful to every one who desires to make himself acquainted with the provisions of the Act and their interpretation.

It is unfortunate that the second edition of Mr. LLOYD GEORGE'S book, *The People's Insurance*,[3] has not been brought up to date. The text of the Insurance Bill, as given, is only as it left the House of Commons; it does not contain subsequent amendments, and the arrangement of the clauses differs from the completed Act. Parts I and II of the book are reprinted from the first edition, and contain the speech of the Chancellor of the Exchequer on introducing the bill on May 4th, and some explanatory memoranda issued by the Treasury and the Board of Trade at the time of that introduction. Some of these are now entirely out of date, and a note is prefixed that "some of the points enumerated need to be read in the light of the amendments since introduced." Another thirty pages are taken up with the speech of the Chancellor of the Exchequer in defence of the bill at Birmingham on June 10th, 1911, which is now chiefly of historic interest, and the rest of the book consists of extracts from the Chancellor's speech of November 28th, 1911, to the deputation of women on the domestic servants' question, and a few replies to letters addressed to the Chancellor before the bill was finally amended. All this has been published before in other forms. Thus the book contains absolutely nothing new except a brief triumphant preface by the Chancellor himself, and much of its matter is not only out of date but inapplicable to the completed Act. It is not easy to understand why a second edition of this character should have been issued.

Mr. C. M. MORAN, barrister, has prepared an *Alphabet of the National Insurance Act, 1911*,[4] with the object of explaining "the terms of the Act in plain English," to collect its provisions on each point of interest in one place so that they can be readily found and seen at a glance, and to serve as a guide to the national insurance scheme as a whole. The volume achieves the second of its avowed objects, but we cannot think that it will serve as a convenient guide to the national insurance scheme as a whole,

[2] *The National Insurance Act, 1911. Being a Treatise on the Scheme of National Health Insurance and Insurance against Unemployment Created by that Act, with the Incorporated Enactments, Full Explanatory Notes, Tables, and Examples.* By Orme Clarke, Barrister-at-Law. With an Introduction by Sir John Simon, K.C.V.O., M.P., Solicitor-General. London: Butterworth and Co. 1912. (Demy 8vo, pp. 491. 12s. 6d.)

[3] *The People's Insurance*, explained by the Right Honourable D. Lloyd George. London: Hodder and Stoughton. 1911. (Cr. 8vo, pp. 236. Second Edition. Price 1s.)

[4] London: Methuen and Co. (1s. net.)

and we have a little suspicion of plain English in its application to an Act of Parliament. In some places, however, Mr. Moran quotes the actual words of the Act. The chief use of the volume will be as an index to the Act itself, a copy of which cannot be dispensed with by any person who wishes to understand its provisions. The Act was printed in the SUPPLEMENT to the JOURNAL of January 6th.

Dr. R. R. RENTOUL has issued a pamphlet entitled *The Sick Public: the Doctors: and The National Insurance Act, 1911*,[5] consisting in the main of what he calls a draft notice of motion for calling a meeting. The motion is to the effect:

> That the Members of the ——— Division British Medical Association and the Medical Practitioners in and about ——— now appoint a "Local Medical Committee" (as provided by Section 62 of the National Insurance Act), to inquire into and report at an early date to a meeting of the Medical Profession in ——— and Districts, upon all those medical provisions bearing upon the treatment of insured persons under the Act, and that two-thirds of the Executive Committee of the ——— Division, British Medical Association, partly form such "Local Medical Committee" with power to add to the number of this Committee, the remainder being non-members of the British Medical Association.

The remainder of this section of the pamphlet consists of a series of questions proposed to be submitted to the local Medical Committees for their consideration and report, and to this section follows a series of notes. The gist of the recommendations made in the notes appears to be contained in the following paragraphs:

> I would ask doctors to organize at once their Local Medical Committees: to see what the Insurance Commissioners will accept, and to have their offer definitely drawn out. I still think that if a capitation grant of not less than 15s. be obtained, this will give each doctor acting under the Act a gross income of over £500 yearly. This, with no bad debts, and paid monthly, with dispensing, midwifery, surgical fees, and private practice, etc., added, would give an average gross income to each doctor of about £650, or more.
>
> Further, I would strongly recommend all doctors to adopt rules for the formation of their own Public Medical Service—owned and controlled by themselves, and with an agreement with the Insurance Commissioners to pay to such Service a sum of money opposite each person insured for sickness and other benefits under the Act, and equal to that which will be required for medical benefit under the Act. This sum, added to the arranged scale of fees to be paid by sick members, either on a cash or insurance basis, would meet all the present difficulties. . . .
>
> I would just add that the pivot of our success, or of failure, can rest at the last stand made by doctors connected with the voluntary and other hospitals. If they refuse to act unless well paid, the medical part of the Act must fail.

In a preface the author laments that the proposal for the formation of a public medical service made by him in 1889 was not accepted.

STUDIES OF THE HEART MUSCLE.

COMING at a time when so much attention is being given to the polygraphic and electro-cardiographic studies of the heart in disease, Professor DIETRICH'S monograph[6] on the elements of the cardiac muscle is bound to be carefully studied. The three main investigations described are the study of the cross-striations of cardiac muscle fibres as met with in various conditions—normal and pathological—of the nuclei of the cardiac muscle under the same conditions, and finally of the histological features of the specific system for the conduction of stimuli first recognized in part by His as a bundle of fibres connecting the muscle of the auricle and ventricle, and later on more fully explained by the discovery of the auricular ventricular node by Tawara, and of the sino-auricular node by Keith and Flack.

By the use of the double staining method by means of brilliant-schwartz-saffranin Professor Dietrich has been able to show the presence of the cross-striations in all human heart muscle fibres, and also in the fibres of the heart muscle of the rabbit, sheep, and dog. The form and arrangement of these cross-striations are constant and characteristic for each type of cardiac muscle; they are not altered by conditions of death agony or by any states of contraction. Atrophy of the heart muscle does not obscure them. Their features in cardiac hypertrophy are very interesting, because by means of the characters shown it is possible to arrive at definite conclusions as to how the bulk of the muscle is increased in this condition. Each individual fibre undergoes an increase in size, the fasciculation of the hypertrophied muscle is not so fine, and the branchings of the cells are less thick; the cross-striations of the fibres will now be found to extend throughout their breadth, to be more delicate in structure, and to be less sharp at the bends; or the zigzag appearance may be much smaller, the coarse, step-like appearance of these bends being no longer seen. The muscle fibres at the site at which the cross-striations travel across them show contractions, and this Professor Dietrich considers to be almost a characteristic feature in hypertrophy of the heart. The researches of Panofsky show that whereas in a normal heart, on an average, there are eighteen to twenty cross-striations in a field, in cases of atrophy there are twenty-one, and in the cases of hypertrophy nine to thirteen, the observations being made in identical situations, with the same magnification, and using sections of the same thickness. Simple plate-like or stretched nuclei are found in the fibres in hypertrophy of the heart, a change no doubt due to the general expansion of each muscle fibre which takes place in this condition. The attempt to exclude the nuclei from participation in the degenerative changes which occur in the fibre is not justified by observations.

The complete study of the various parts of the conducting system of fibres forms a most important part of his investigation. The fibres in the auricular and ventricular walls are discussed in detail. Though Purkinje's fibres are well seen in the sheep's heart, their representatives in the human heart show considerable departure in morphological detail. Apparently different parts of the system show great variations in contents of the cells; in some places there is much, in others little glycogen. An attempt is made to show the nature of the structural connexion between these cells and the ordinary cardiac muscle, as well as with the collection of involuntary muscle discovered by Aschoff in the auricle.

Short reference is made to the all-important question whether or not the cells of this conducting tissue are capable of actually initiating a stimulus. Their richness in sarcoplasm suggests this possibility to Professor Dietrich, but the wonderful continuity existing between each and every part of the conducting system gives Mönckeberg reasonable ground for looking upon the system as having much in common with the conductive power of nerve fibres.

MEDICAL DIAGNOSIS.

THE second edition of Dr. MCKISACK'S *Dictionary of Medical Diagnosis*[7] brings up to date a book of which, on its first appearance, we were able to speak in terms of high praise. As its title indicates, it is a treatise on the signs and symptoms observed in diseased conditions, and is likely to be even more useful to medical practitioners than to medical students. The articles have all been revised, and additions have been made to some of those contributed by the author's colleagues; Dr. Houston has given an account of the Wassermann reaction, Dr. Rankin has amplified his description of the radiography of the abdomen, and Dr. McIlwaine has described the antiformin method of examination for the tubercle bacillus. A number of diagnostic signs, tests, or reactions, omitted in the first edition, have now been introduced. The book is extremely useful for ready reference, and in this connexion the only criticism we feel disposed to make is that the index might be extended.

Although the *Manual of Physical Diagnosis* by Dr. O'REILLY[8] bears the imprint of a London publisher, it has all the appearance of having been produced on the other side of the Atlantic, being disfigured by American spelling, for example, maneuver, by the absence of diphthongs, and by a superabundance of misprints; for example, "serium" for serum, "filtarate" for filtrate, "declaim" for disclaim. The book is of the kind with which we are familiar as a

[5] Liverpool: Cornish and Sons; or from the Author. (1s. net, or fifty copies 6d. each.)

[6] *Die Elemente des Herzmuskels.* By Professor Dr. A. Dietrich. Jena: Gustav Fischer. 1910. (Roy. 8vo, pp. 46; 3 figs. 5s., or M.1.20.)

[7] *Dictionary of Medical Diagnosis.* By Dr. Henry Lawrence McKisack. Second edition. London: Baillière, Tindall, and Cox. (Demy 8vo, pp. 602; figs. 76; 10s. 6d. net.)

[8] *A Manual of Physical Diagnosis.* By Brefney Rolph O'Reilly, M.D., C.M. London: J. and A. Churchill. 1911. (Post 8vo, pp. 380; with six plates and forty-nine other illustrations. 8s. 6d. net.)

clinical guide for students, and it fulfils that purpose on the whole very well. In some respects it errs by being overloaded with detail, while in the examination of the urine, the stomach contents, and faeces it is scarcely adequate. We should have thought the subject of vocal cord paralysis of sufficient importance, in view of its occurrence in aneurysm, goitre, and cancer of the oesophagus, to deserve a description, but the reader is referred to a text-book on laryngology. We notice the author speaks of Heberden's nodes as "Haygarth's nodosities," but they are not quite the same thing. It is not quite certain what Haygarth meant, but it is clear from his writing that he described by this term a definite painful progressive disease, apparently a form of rheumatoid arthritis, and not a single phenomenon. The formula for Esbach's solution is given wrongly, nitric acid being substituted for citric acid, and that for Fehling's solution is different from any that we are accustomed to use. The author objects to the use of the Ewald or Boas test meals on the curious ground that these meals are not "usually taken by people living in America." As they are purely empirical tests, neither Ewald nor Boas would wish them to be applied if the results in "people living in America" differ from those met with in people living in Germany or England, but if any other meal is to be substituted, its value must be shown by an equally extensive empirical study.

NOTES ON BOOKS.

ONE of the most important of the many social problems which confront the civilized nations of to-day is undoubtedly that which relates to the welfare of the children—the future progenitors and defenders of the race. It is not always an easy matter, however, for those who have heard "the young, young children . . . weeping in the playtime of the others, in the country of the free," to avoid mistakes which may destroy the fruit of years of labour; therefore the invaluable series of *National Health Manuals*[1] should prove of great assistance to all who have devoted themselves to this particular branch of social work. The third of these most useful handbooks has recently appeared under the title *School Life*, and forms a fitting sequel to its predecessors *Infancy* and *Childhood*. "We are still in the experimental stage in regard to most matters relating to social reform," Dr. KELYNACK, the editor, remarks in his short preface, "and there is a danger that in our eagerness and enthusiasm . . . we may be led into serious errors or be guilty of deficiencies and extravagances which will inevitably hinder progress. Social advance must be based upon and governed by scientific principles. To indicate and to explain these is the main purpose of these manuals." This purpose, it is hardly necessary to add, has been well fulfilled by these attractive little volumes. *School Life*, as its title indicates, deals exclusively with the school life of children of every age and condition, and contains much valuable information and advice with regard to the dangers and difficulties, mental, moral, and physical, which often arise at this critical period of the child's career. Each chapter has been contributed by a competent medical authority, special attention being paid to such questions as child labour, school sanitation and hygiene, and the proper treatment of defective and abnormal children. The book, which is well printed and of a convenient size for handling, is provided with a long list of useful references.

In putting into book form and publishing his notes on *Improvised Methods of Aid in the Field*[2] Lieutenant-Colonel MACKAY has rendered a service not only to members of Voluntary Aid Detachments but also to those who have to instruct them. A knowledge of improvisation is always essential in rendering efficient first aid, but it is especially necessary in war, as it frequently happens that the appliances ready to hand are far too few to cope with the large number of cases that have to be quickly dealt with. The first chapter indicates various tools and materials that will be found useful, and describes how they may be employed to manufacture stretchers, splints, slings, etc. The second is devoted to an explanation of work that has to be done in the collecting zone; but here as a rule Voluntary Aid Detachments would not be employed. The next three chapters describe how wagons, carts, railway carriages and trucks, boats, barges, etc., can be utilized for the comfortable transport of the sick and wounded; and the remaining two indicate various methods of constructing temporary shelters on the field, and of extemporizing and arranging hospitals. There are numerous illustrations which make the descriptions easier to understand, and two diagrams showing the medical organization in the field. The book is one we should advise members of Voluntary Aid Detachments to obtain.

In his work on *England's Recent Progress*,[3] Mr. WELTON has investigated the movements of population in various types of community, as indicated in the official statistics, between 1881 and 1901. A series of more or less distinct groups having been formed (Large Towns, Old Towns, Colliery Districts, etc.), migratory movements, death-rates, birth-rates, and marriage-rates are specially investigated in each class. A work of this kind hardly lends itself to review in the ordinary sense of that term, as will be gathered from the fact that, out of 742 pages, some 600 consist exclusively of tables—an eloquent testimony to the industry and patience of the author; the volume should find a place in every reference library, but it would have been more easy to read if Mr. Welton had brought the conclusions he desired to emphasize to a more definite focus. The section dealing with birth-rates is perhaps that which has most interest at the moment. Comparing the figures for 1881–90 and 1881–1900, the author observes that "these figures simply support the idea that since 1881 there has been a progressive decline in the birth-rate, affecting textile manufacturing places and residential towns in a special degree, but extending to every part of the kingdom." In discussing local variations, he infers that where people marry most freely they take the least care to reduce fertility below what is natural. Contrasting the two decennia of the period under review, he finds that the reduction is somewhat greater in the second period—"residential places and old towns, where the loss in the preceding decennium was great, show slightly diminished losses, but colliery districts considerably greater ones, not large enough, however, to interfere with the fact that fertility in those districts still touches the highest point." On the whole, it is not too much to say that students of social changes are indebted to Mr. Welton for bringing together and tabulating a great deal of important information.

Telepathy seems to possess a curious fascination for certain temperaments, and apparently some of its more ardent votaries go so far as to discover signs of its influence even in the ravings of delirium. The hero of Dr. G. M. IRVINE'S latest book, *In the Valley of Vision*,[4] having "conceived the idea of the possibility of establishing telepathic communication with many individuals—probably with all—when in a critical condition as the result of acute disease," was able, we are assured, not only to converse with the shades of Sir Walter Scott, Don Quixote, and other "viewless forms of air," but also to watch from his bed of sickness the process of purification undergone in the next world by the souls of unscrupulous doctors, politicians, financiers, jerry-builders, and the rest of that great army which exists by exploiting the miseries of its fellow-men. The recital of those false creations "proceeding from the heat-oppressed brain" of a semi-conscious man is evidently meant to convey a moral, and one which, no doubt, is badly needed by a considerable proportion of mankind; but on the whole the book is, perhaps, hardly worthy of the clever author of that successful novel, *The Lion's Whelp*. His new book, however, lacks neither originality nor interest, and will doubtless find interested readers amongst those to whom the supernatural, in all its various guises, never appeals in vain.

[1] *National Health Manuals. School Life.* Edited by T. N. Kelynack, M.D. London: Charles H. Kelly. 1911. (Post 8vo, pp. 168 1s. net.)

[2] *Improvised Methods of Aid in the Field.* By H. Mackay, M.D., T.D., Lieutenant-Colonel R.A.M.C.(T.). London: Eyre and Spottiswoode, Limited. 1911. (Demy 16mo, pp. 120; 47 illustrations. 1s. 6d. net.)

[3] *England's Recent Progress: An Investigation of the Statistics of Migrations, Mortality, etc.* By Thomas A. Welton, F.S.S., F.C.A. London: Chapman and Hall. 1911. (Roy. 8vo, pp. 806; graphs 48. 10s 6d. net.)

[4] *In the Valley of Vision.* By G. M. Irvine. London: Simpkin, Marshall, Hamilton, Kent, and Co. 1911. (Cr. 8vo, pp. 173; illus. 16. Price 2s. 6d. net.)

THE After-Care Association for Poor Persons discharged recovered from Asylums for the Insane, Church House, Westminster, has received donations of £20 from the Clothworkers Company, and £10 10s. from the Skinners Company.

UNDER the will of the late Mr. William Bell Readhead, a shipbuilder, of South Shields, Ingham Infirmary receives a bequest of £1,000, and the Nursing Guild branch of the St. John Ambulance Association at South Shields, and the Indigent Sick Society in that town, a sum of £100 each.

MEDICAL AND SURGICAL APPLIANCES.

An Improved Colotomy Tube.

MR. DUNCAN C. L. FITZWILLIAMS, F.R.C.S., writes: The paramount importance of evacuating the septic and highly toxic contents of the bowel with the least possible delay in cases of acute obstruction has long been recognized; unfortunately this is not always an easy matter, and after fixing the ordinary colotomy tube of Paul's pattern into the gut our attempts to empty the bowel are confined to giving aperients by the mouth, and more recently the administration of eserine subcutaneously to stimulate peristalsis. As, however, vomiting may continue for some hours, or even days, after the operation, aperients are frequently of little use. The most effective and the quickest method of emptying the bowel is to wash out the contents by enema; this, however, cannot be done with the colotomy tube at present in use. On several occasions I have tried to do this by making a small hole in the large rubber escape tube used to carry off the bowel contents and introducing fluids while the tube is clamped below the hole. This has proved unsatisfactory, as leakage occurs subsequently through the hole, and the tube is thus rendered useless. Some months ago Messrs. Weiss and Son made to my pattern a colotomy tube which avoids these drawbacks. The tube differs from that in general use in the fact that a small, short arm is inset into the convexity of the curve, so that it has the same direction as the limb of the tube which is inserted into the bowel. When in use, a small piece of drainage tube about 6 in. long is fitted on to the short arm. After the tube is fastened into the bowel the end of the drainage tube will project above the dressings and must be secured to prevent the escape of bowel contents; this may be done with a pair of clip forceps or a safety pin attached to the binder, or the tube may be tied in a simple knot. After the first gush of faecal material has passed, the interior of the bowel can be washed out by means of a douche can or an enema syringe, the fluid being led through the small rubber tube into the interior of the colotomy tube. The large escape tube is flushed out and then clamped, after which the fluid enters the bowel. In this way enemata can be given at short intervals without disturbing or soiling the dressings. The ordinary enemata can be employed, but if an irritant such as turpentine is used only half the usual strength should be given on account of the inflamed state of the bowel. After the bowel is cleared, which can be done usually in about six hours, fluids such as warm saline can be given in the same manner as is employed in septic peritonitis. It is rapidly absorbed, and is useful in replacing the amount of fluid lost by the previous vomiting. If the vomiting has been present for some days another element antagonistic to the patient has to be reckoned with, namely, actual starvation. For this reason it is a good plan to add to the saline sufficient glucose to make a 2 per cent. solution. This can be absorbed directly into the blood. I have used these tubes on more than a dozen cases, and find them a great advance on the old ones which serve merely as an outlet for the bowel contents. The tubes are made in four sizes, ranging in diameter from ½in. to 1¼ in.

MEDICINAL AND DIETETIC ARTICLES.

Atophan.

WE have received from Messrs. A. and M. Zimmermann (3, Lloyds Avenue, London, E.C.) a sample of tablets of atophan, or 2-phenylquinoline-4-carboxylic acid, made by Messrs. Schering, and put forward as a remedial agent in gout. It is claimed that by its administration the amount of uric acid eliminated is greatly increased, the action being similar to that of sodium salicylate, but more intense and prompt. It is a white substance insoluble in water, but the tablets are so made that they disintegrate rapidly when wet; it is soluble in alkalis, and it is recommended that sodium bicarbonate should be given in considerable quantity during its administration.

BRITISH MEDICAL BENEVOLENT FUND.

AT the December meeting 22 cases were considered, and grants amounting to £161 were made to 18 of the applicants. As the current account was already overdrawn to the extent of £215 the deficit was consequently increased to £376, and the Committee earnestly appeals for support to enable it both to pay off this overdraft and to deal with the very distressing and numerous applications which are always received early in the year. Contributions may be sent to the Honorary Treasurer, Dr. Samuel West, 15, Wimpole Street, London, W. Appended is an abstract of the cases relieved:

1. Wife, aged 25, of M.R.C.S., L.S.A. Husband had to be removed to an asylum a few weeks ago, and applicant, who is in very bad health, is practically destitute. One child, aged 14 months. Voted £10.
2. Daughter, aged 27, of late L.R.C.P.Edin. Has been employed as a telephone clerk for the last ten years, but is in feeble health, and has therefore decided to endeavour to support herself by letting lodgings. Voted £5.
3. Widow, aged 65, of L.R.C.P.Edin. Supplements an annuity of £20 by addressing envelopes, etc., but finds increasing difficulty in getting employment. Relieved fourteen times, £141. Voted £5.
4. Widow, aged 53, of L.R.C.P.Edin. Has been deprived of a home by the recent death of a relation, and is dependent on a few shillings a week allowed by her mother-in-law. Relieved four times, £20. Voted £10.
5. Wife, aged 48, of M.R.C.S. Is separated from her husband through no fault of her own, and endeavours to support herself and six children, aged 17 to 9, by letting lodgings. Relieved twice, £24. Voted £5.
6. Daughters, aged 57 and 53, of late M.R.C.S. Health indifferent, and attempt to maintain themselves by taking lodgers or boarders, but have had a very bad season. Relieved seven times, £84. Voted £12.
7. Widow, aged 66, of L.R.C.P.Edin. Only income £20 a year from a small house, of which the lease has nearly expired. Relieved twelve times, £138. Voted £12.
8. Widow, aged 65, of M.R.C.S., L.S.A. Quite unprovided for at husband's death about twelve months ago, but hopes to support herself by taking a resident patient or boarders. Relieved once, £6. Voted £6.
9. Widow, aged 52, of L.S.A. No income and entirely dependent on her earnings from needlework, in which she is assisted by the younger of two daughters. Elder daughter, aged 18, earns a few shillings a week by teaching. Relieved five times, £46. Voted £12.
10. Widow, aged 63, of L.S.A. Only income £12 a year; children unable to give more than slight help. Relieved twice, £24. Voted £12.
11. Widow, aged 50, of M.R.C.S. No income and is endeavouring to establish a boarding house. Relieved twice, £20. Voted £10.
12. Daughter, aged 62, of late M.D.Edin. Used to be a companion, but gave up her post a few years ago to nurse her two elder sisters, who are both chronic invalids. Only income £10 a year, allowed by a friend. Relieved six times, £72. Voted £12.
13. Widow, aged 47, of L.K.Q.C.P.I. Quite unprovided for at husband's death and dependent on letting lodgings and on needlework. Relieved once, £5. Voted £5.
14. Widow, aged 74, of M.R.C.S. Has a small income, but asks for a little help to meet unavoidable expenses. Relieved once, £12. Voted £5.
15. Widow, aged 61, of M.R.C.S. Quite unprovided for at husband's death three years ago, and finds great difficulty in obtaining a suitable post, even in exchange for a home. Relieved twice, £26. Voted £12.
16. Widow, aged 66, of M.R.C.S. Is quite destitute except for small uncertain earnings from needlework. Relieved twice, £24. Voted £12.
17. Widow, aged 83, of M.R.C.S. Only means of support an annuity of £10 and an old age pension of 5s. a week. Relieved once, £6. Voted £6.
18. L.S.A., aged 67. Practises in a thickly populated neighbourhood, but finds great difficulty in getting paid, and is in consequence in arrears with his rent. Health very indifferent. Relieved twice, £36. Voted £10.

FROM the latest report of the English Mission Hospital at Bagdad, it would appear that bilharziosis is as rife in Mesopotamia as in Egypt. In the experience of the senior member of the staff, Dr. Frederick Johnson, it is found chiefly in those who draw their drinking water from the stagnating pools formed in the desert when the Tigris and Euphrates overflow in the spring time, while those who draw their water direct from these rivers are exempt. The figures given in the report show that, in relation to the size of the institution, much surgery is performed thereat, operations on the bladder and urethra perhaps predominating. Subscriptions in aid of its work will be gladly received by the secretary of the Church Missionary Society, Salisbury Square, E.C.

Nova et Vetera.

MODERN FAITH HEALING.

F. ANTON MESMER.

(Continued from page 84.)

REPORT OF THE COMMISSION—*continued.*

BUT it must be agreed, however, that the practice of magnetism produces in the living body changes more marked and disorders more considerable than those just reported. None of the subjects who believed that they were magnetized have hitherto been thrown into convulsions; it was therefore a new object of experiment whether by only exciting the imagination one could produce crises similar to those which take place in the public treatment. Then several experiments were arranged with this view. When a tree was touched according to the principles and method of magnetism every person who stops at it should feel more or less the effects of that agent; there are some even who lose consciousness or have convulsions. M. Deslon was spoken to about the matter and replied that the experiment ought to succeed provided the subject were very sensitive, and it was agreed with him to make it at Passy in the presence of M. Franklin. The necessity that the subject should be sensitive made the Commissioners think that to render the experiment decisive and unanswerable it must be made on a person chosen by M. Deslon and whose sensitiveness to magnetism he had tested beforehand. M. Deslon therefore brought with him a boy of about twelve; an apricot tree standing alone and suitable for keeping magnetism which should have been impressed upon it was marked in the orchard of the garden. M. Deslon was taken there alone that he might magnetize it, the boy remaining in the house with the persons who did not leave him. It could have been wished that M. Deslon had not been present at the experiment, but he declared that it might fail if he did not direct his cane and his gaze on that tree to increase the action. It was decided to keep M. Deslon away as much as possible, and to place Commissioners between him and the young man, so as to make sure that he made no sign and to be able to answer that there was no understanding between them. These precautions in an experiment which must be authentic are indispensable without being offensive.

The boy was then brought with his eyes bandaged, and he was presented successively to four trees which had not been magnetized, making him clasp them each for two minutes, according to what had been arranged by M. Deslon himself. M. Deslon being present, and at some distance, pointed his cane towards the tree that had been really magnetized At the first tree the boy, asked after a minute, declared that he was sweating heavily; he coughed, expectorated, and said he felt a slight pain in the head; the distance to the magnetized tree was about 27 feet. At the second tree he felt giddiness and even pain from the head; the distance was 36 feet. At the third tree the giddiness as well as the headache became intensified; he said he thought he was coming near the magnetized tree; he was then about 38 feet from it. At last, at the fourth non-magnetized tree, and at about 24 feet distance from the tree which had been magnetized, the boy fell into crisis; he lost consciousness, his limbs became rigid, and he was carried to a neighbouring plot of grass, where M. Deslon attended to him and restored him.

The result of this experiment is entirely against magnetism. M. Deslon tried to explain the fact by saying that all the trees are magnetized by each other, and that their magnetism is further reinforced by his presence.

But in that case a person sensitive to magnetism could not go into a garden without running the risk of having convulsions. This assertion is contradicted by everyday experience. The presence of M. Deslon did nothing more than it did in the carriage in which the boy came with him, sitting opposite him, and in which he experienced nothing. If the boy had felt nothing, even under the magnetized tree, it might have been said that he was not sufficiently sensitive, at any rate on that day; but the boy fell into crisis under a tree which had not been magnetized. This was therefore an effect which had no physical or external cause, and which cannot have any other cause than the imagination.

The experiment is therefore entirely conclusive: the boy knew that he was being taken to the magnetized tree; his imagination was struck, gradually exalted, and at the fourth tree it was excited to the degree necessary for the production of the crisis. This experiment is supported by others, and yielded the same result. One day when the Commissioners were all gathered together at Passy at M. Franklin's house, and with M. Deslon, they begged the latter to bring with him patients and to choose from among the poor people undergoing treatment those most sensitive to magnetism. M. Deslon brought two women, and while he was occupied in mesmerizing M. Franklin and several persons in another room, the two women were separated and placed in two different rooms. One, the woman P., had opacities on the eyes, but as she still sees a little, nevertheless her eyes were covered with the bandage above described. She was persuaded that M. Deslon had been brought to magnetize her; silence was enjoined; three Commissioners were present—one to ask questions, another to take notes, the third to play the part of M. Deslon. One pretended to speak to M. Deslon, begging him to begin, but the woman was not magnetized; the three Commissioners remained quiet, occupied only in observing what was about to happen. At the end of three minutes the patient began to feel a nervous shiver; then successively she felt a pain at the back of the head, and in the arms a creeping sensation in the hands (that was her expression); she became stiff, clapped her hands, rose from her seat, stamped her feet—the crisis was well marked. Two other Commissioners, placed in the room alongside with the door shut, have heard the stampings of the feet and the beatings of the hands, and, while seeing nothing, were witnesses of this noisy scene.

These two Commissioners were with the other patient Miss B., suffering from disordered nerves. She was allowed to see, her eyes being left uncovered; she was seated before a closed door and persuaded that M. Deslon was on the other side busy magnetizing her. Hardly a minute had passed since she sat down before that door when she began to feel a shiver; after another minute her teeth chattered, although she felt a general heat; lastly, after a third minute, she fell altogether into crisis. The respiration was hurried; she stretched her two arms behind her back, twisting them strongly and leaning her body forward; there was a general trembling of the whole body; the chattering of the teeth became so noisy that it could be heard outside; she bit her hand deeply enough to leave the marks of her teeth there. It is well to point out that neither of these patients was touched in any way; their pulse was not even felt, so that it might not be said that magnetism had been communicated to them; and, nevertheless, the crises were complete. The Commissioners wished to know the effect of the working of the imagination, and to appreciate the part which it might play in the crises of magnetism have obtained all they wished. It is impossible to see the effect of this working more plainly and in a more evident manner than in these two experiences. If the patients have declared that their crises are stronger at the treatment this is because the excitement of the nerves is communicated, and in general every peculiar and individual emotion is increased by the sight of similar emotions.

The opportunity occurred of testing a second time the woman P., and recognizing how much she was dominated by her imagination. It was desired to make the experiment of the magnetized cup; this experiment consists in choosing among a number of cups one cup which is magnetized. They are presented in turn to a patient sensitive to magnetism; he should fall into crisis, or at least feel appreciable effects when the magnetized cup is presented to him; he should be indifferent to all those which are not magnetized. It is only necessary, as M. Deslon has recommended, to present them to him with the direct pole, in order that he who holds the cup should not magnetize the patient, and that there should be no other effect than that of the magnetism of the cup.

The woman P. was sent for to M. Lavoisier's residence at the Arsenal, where M. Deslon was; she began by falling into crisis in the antechamber before having seen either of the Commissioners or M. Deslon; but she knew that she was to see him, and this is a well-marked effect of the

imagination. When the crisis was over the woman was taken to the place for the experiment. Several porcelain cups which had not been magnetized were presented to her; the second cup began to move her, and at the fourth she fell altogether into crisis. It may be replied that her condition was a state of crisis which had begun in the anteroom and became renewed of itself; but that which is decisive is that on her asking for something to drink it was given to her in the cup magnetized by M. Deslon himself; she drank quietly, and said she was relieved. The cup and the magnetism therefore failed in their effect as the crisis was soothed instead of being increased. Some time afterwards, whilst M. Majault was examining the opacities on her eyes, the magnetized cup was presented to her behind her head, and that during twelve minutes; she did not notice it and felt no effects; she has even at no time been more quiet, because her imagination was distracted and occupied with the examination of her eyes that was being made. It was related to the Commissioners that this woman being alone in the anteroom, different persons having nothing to do with magnetism went near her, whereupon the convulsive movements had begun anew. It was pointed out to her that she was not being magnetized; but her imagination was so struck that she replied: "If you had done nothing to me I should not be in the state in which I am."

She knew that she had come in order to be subjected to experiments; the approach of anyone, the least noise, excited her attention, awakened the idea of magnetism, and renewed the convulsions. The imagination in order to act powerfully often requires that several strings be touched at once. The imagination corresponds to all the senses; its reaction must be proportionate both to the number of senses which stir it and to that of the sensations received; this is what the Commissioners have recognized by an experiment of which they are about to give an account. M. Jumelin had spoken to them of a young lady, aged 20 years, in whom he had caused loss of speech by the power of magnetism; the Commissioners repeated the experiment at his house; the young lady consented to submit to it and to allow her eyes to be bandaged. An effort was first made to attain the same effect without magnetizing her; but although she felt, or thought she felt, effects of magnetism, it was found impossible to strike her imagination enough to make the experiment successful. When she was really magnetized, her eyes left bandaged, the result was not more successful. Her eyes were uncovered, then the imagination was set in motion at once by sight and by hearing; the effects were more marked; but although the head began to get heavy, although she felt discomfort at the root of the nose, and a great part of the symptoms which she had experienced the first time, nevertheless she did not lose her speech. She herself noticed that it was necessary that the hand which magnetized her on the brow should be brought down to the level of the nose, remembering that the hand was thus placed when she lost her voice. What she suggested was done, and in three-quarters of a minute she became dumb; nothing but some inarticulate and low sounds were heard, notwithstanding the visible efforts of the throat to produce the sound, and those of the tongue and lips to articulate it. This state lasted only one minute; one sees that, finding herself precisely in the same circumstances, the seduction of the spirit and its effects on the organs of voice were the same. But it was not enough that speech should warn her that she was magnetized; it was necessary that sight should offer her a stronger and more stirring testimony; it was still further necessary that a gesture already known should awake her ideas. It seems that this experiment shows wonderfully how the imagination acts, is aroused by degrees, and has need of more external helps to be more effectually set in motion. This power of the sight on the imagination explains the effects which the doctrine of magnetism attributes to the gaze. The gaze has in an eminent degree the power of magnetizing; the signs and gestures employed usually produce no effect, the Commissioners were told, except on a subject over whom one has previously taken hold by casting a glance upon him. The reason is simple; it is in the eyes that are placed the features most expressive of the passions; it is there that is unfolded all that the character has of most imposing and most seductive. The eyes should therefore have a great power over us, but they have this power only because they stir the imagination, and in a manner more or less exaggerated according to the strength of that imagination. It is therefore the glance that begins the whole work of magnetism, and the effect of it is so potent, it leaves traces so deep, that a woman newly arrived at M. Deslon's house, having met, as she was coming out of the crisis, the glance of one of his pupils who was magnetizing her, stared at him for three-quarters of an hour. She was long pursued by that look. She always saw before her that same eye fixedly looking at her, and she had it constantly in her imagination for three days during sleep as well as when she was awake. It is easy to see all that can be produced by an imagination capable of retaining so long the same impression—that is to say, to renew itself, and by its own power the same sensation during three days. The experiments just recorded are uniform and equally decisive; they warrant the conclusion that the imagination is the true cause of the effects attributed to magnetism. But the partisans of this new agent will perhaps reply that the identity of the effects does not always prove the identity of the causes. They will grant that the imagination can excite these impressions without magnetism, but they will maintain that magnetism can also excite them without the imagination. The Commissioners easily negatived this assertion by reasoning and physical principles; the first of all is not to admit new causes without absolute necessity. When the effects observed may have been produced by an existing cause and which other phenomena have already manifested, sound physics teaches that the effects noticed should be attributed to that; and when it is announced that a cause hitherto unknown has been discovered sound physics equally requires that it should be established, demonstrated, by effects which do not belong to any known cause, and which can only be explained by the new cause. It is therefore for the partisans of magnetism to bring forward other proofs and to seek effects entirely stripped of the illusions of the imagination. But as facts are more convincing than reasoning, and have a more striking evidence, the Commissioners wished to test by experiment what magnetism would do when the imagination did not act. Two adjoining rooms in a flat, with a door of communication between them, were arranged. The door was taken away, and for it was substituted a frame covered with a double fold of paper stretched over it. In one of the rooms was one of the Commissioners to write down what would happen, and a lady was announced as coming from the provinces, and as having linen which she wanted to have worked. Miss B., a seamstress who had already been employed in the experiments at Passy, and whose sensitiveness to magnetism was known, was sent for. When she arrived everything was so arranged that there was only a single seat on which she could sit down, and that seat was placed in the embrasure of the door of communication, where she was as if in a niche.

The Commissioners were in the other room, and one of them, a physician practised in magnetism and having already produced effects, was entrusted with magnetizing Miss B. through the screen of paper. It is a principle of the theory of magnetism that that agent passes through wooden doors, walls, etc. A screen of paper could not present an obstacle to it; moreover, M. Deslon positively established that magnetism passes through paper, and Miss B. was magnetized as if she had been exposed and in his presence. She was so in fact during half an hour, at a foot and a half distance at opposite poles, following all the rules taught by M. Deslon and which the Commissioners have seen practised by him. During all that time Miss B. carried on a conversation gaily; asked about her health she answered freely that she was quite well. At Passy she fell into crisis at the end of three minutes; here she bore the magnetism without any effect during thirty minutes. It was because here she did not know she was being magnetized, whilst at Passy she believed she was being so. It is evident, therefore, that the imagination alone produces all the effects attributed to magnetism, and when the imagination does not act there are no more effects.

There is only one objection to be made to this experiment—that is, that Miss B. might be indisposed, and might be less sensitive at that moment to magnetism. The Commissioners had foreseen the objection, and conse-

quently made the following experiment. As soon as the magnetization through the paper had ceased, the same physician Commissioner passed into the other room; it was easy for him to engage Miss B. to allow herself to be magnetized. Then he began to magnetize her, taking care, as in the following experiment, to keep himself a foot and a half away, to employ only gestures and movements of the index finger and the iron rod; for had he applied the hands and touched the hypochondria, it might have been said the magnetism had acted by that more immediate application. The only difference there is between these two experiments is that in the former he magnetized at opposite poles, following the rules, whereas in the second he magnetized at direct poles and in opposite directions. By acting thus one should not, according to the theory of magnetism, produce any effect. Nevertheless, after three minutes Miss B. felt malaise and suffocation; there supervened successively hiccoughing, gnashing of the teeth, a feeling of constriction of the throat, and severe headache; she moved uneasily on her chair; she complained of her loins; she sometimes stamped sharply with her foot on the floor; then she stretched her arms behind her back, twisting them strongly as at Passy; in a word, the convulsive crisis was complete and perfectly marked. She went through all these stages in twelve minutes, whilst the same treatment used during thirty minutes left her unmoved. There is nothing more here than the imagination. It is therefore to that that the effects belong.

If imagination made the crisis begin it was also the imagination that made it stop. The Commissioner who magnetized her said it was time to stop; he presented to her his two forefingers crossed; and it is well to observe that in that way he was magnetizing her at direct poles as he had done up till then; there was, therefore, nothing changed, the same treatment ought to have continued the same impressions. But the intention was sufficient to quiet the crisis; the heat and the headache disappeared. The evil has always been chased from place to place, when it was declared that it was about to disappear. It is thus at the voice which commanded the imagination the pain in the neck ceased. Then successively the feelings in the chest, the stomach, and the arms. Only three minutes were required, after which Miss B. said she no longer felt anything, and was absolutely in her natural state. These last experiments, as well as several of those that were made at M. Jumelin's house, have the double advantage of demonstrating at the same time the power of the imagination and the fact that magnetism has no part in the effects produced.

If the effects are still more marked, if the crises seem more violent in the public treatment, it is because several causes combine with the imagination to work with it, to multiply and increase its effects. One begins to master the spirits by the look; a touch, laying on of hands quickly follows, and it is proper to develop here its physical effects.

These effects are more or less considerable; the least are hiccoughs, rising of the stomach, purgations; the most considerable are the convulsions called "crises." The place where the touch is applied is in the hypochondriac region, on the pit of the stomach, and sometimes on the ovaries when it is women who are touched. These different regions are pressed and squeezed with the hands or the fingers. The colon, one of our great intestines, passes through the two hypochondriac regions and the epigastric region which separates them. It is placed immediately under the skin. It is therefore on this intestine that the touch is made, on this intestine sensitive and very irritable. Movement alone, movement repeated without any other agent, excites the muscular action of the intestine, and sometimes causes evacuations. Nature seems to indicate as if by instinct this manœuvre to hypochondriacal patients. The practice of magnetism is nothing but this very manœuvre, and the purgations which it may produce are still further facilitated in the magnetic treatment by the frequent and almost habitual use of a real purgative drug, cream of tartar given as a beverage. But when movement principally excites the irritability of the colon, that intestine presents other phenomena. It swells more or less, sometimes acquiring a considerable volume. Then it communicates to the diaphragm such an irritation that that organ becomes more or less convulsed, and this is what is called "crisis" in the treatment of animal magnetism. One of the Commissioners has seen a woman subject to a kind of spasmodic vomiting repeated several times every day. Her retchings only produced cloudy and viscous water, like that ejected by patients in crisis during the practice of magnetism. The convulsion had its seat in the diaphragm, and the region of the colon was so sensitive that the slightest touch on that part, a strong movement of the air, surprise caused by an unexpected noise, sufficed to excite the convulsions. This woman, therefore, had crises without magnetism, due solely to the irritability of the colon and the diaphragm, and the women who are magnetized have their crises owing to the same cause and this irritability.

The application of the hands on the stomach has physical effects equally remarkable. The application is made directly on the organ. Sometimes one exerts on it a strong and continuous compression, sometimes light and reiterated pressures, sometimes a quivering by a rotary movement of the iron rod applied to that part; lastly, by passing over it successively and rapidly the thumbs one after the other. These manœuvres quickly produce in the stomach an irritation more or less strong and more or less durable, according as the subject is more or less sensitive or irritable. The stomach is prepared or disposed to this stimulation by previously compressing it. This compression places it in the position of acting on the diaphragm, and communicating to it the impressions which it receives. It cannot be irritated without the diaphragm being irritated, and hence their result as by the action of the colon, the nervous phenomena of which we have spoken.

In sensitive women, by simple pressure of the two hypochondriac regions without any other movement, the stomach is constricted and these women faint. It is this that happened to the woman magnetized by M. Jumelin, and it often happens without other cause when women are too tightly laced in their clothes. There is then no crisis, because the stomach is compressed without being irritated and the diaphragm remains in its natural state. The same manœuvres practised in women over the ovaries, in addition to the effects peculiar to these organs, produce much more powerfully still the same occurrences. The influence and dominion of the uterus on the animal economy is well known. The intimate relation of the colon, of the stomach, and of the uterus with the diaphragm is one of the causes of the effects attributed to magnetism. The regions of the lower abdomen subjected to different touches correspond to different plexuses which there constitute a veritable nervous centre by means of which, apart from any system, there certainly exists a sympathy, a communication, a correspondence between all the parts of the body, an action and a reaction, such as the sensations excited in that centre, set in motion the other parts of the body, and reciprocally a sensation felt in one part quickens and brings into play the nervous centre which often transmits that impression to all the other parts. This explains not only the effects of the magnetic touch but also the physical effect of the imagination. It has always been observed that the affections of the soul direct their first impression on this nervous centre, which is the reason why it is commonly said that one feels a weight on the stomach and has a sense of suffocation. The diaphragm comes into play. Hence sighs, tears, and laughter. There is then felt a reaction on the viscera of the lower belly, and it is thus that the physical disturbances produced by the imagination can be accounted for. Shock causes colic, fear causes diarrhoea, grief causes jaundice. The history of medicine includes an infinity of examples of the power of the imagination and the affections of the soul. The fear of fire, a violent desire, a firm and sustained hope, a fit of anger, restore to a disabled gouty man or a paralytic the use of his legs; a keen and unexpected joy will cause a quartan fever of two months' duration to disappear; a strong attention stops hiccough. People mute by accident recover speech as the consequence of a lively mental emotion. History shows that this emotion is sufficient to bring about recovery of speech, and the Commissioners have seen that the imagination when struck was enough to suspend the use of it. The action and reaction of the physical on the moral, and of the moral on the physical part of our economy, are proved since observation has been practised in medicine, that is to say since its beginning.

Tears, laughter, hiccoughs, and, in general, all the effects observed in what are called the crises of the public treat-

mert, therefore originate either in disturbance of the functions of the diaphragm by some physical means, such as touch and pressure, or from the power with which the imagination is endowed to act on that organ and disturb its functions. If it be objected that touching is not always necessary to produce these effects, it may be replied that the imagination may possess sufficient power to produce it all by itself—especially the imagination acting in a public treatment, and then doubly excited by its own movement and by that of the imagination of those around. It has been seen what it produces in the experiments made by the Commissioners on isolated subjects. One may judge of its multiplied effects on patients gathered together in the public treatment. These patients are assembled there in a place small relatively to their number; the air is hot, although care is taken to renew it, and is always more or less charged with mephitic gas, which acts especially on the head and the nervous system. If there is music, that is an additional means of acting on the nerves and stimulating them. Several women are magnetized at once, and at first feel only effects like those which the Commissioners obtained in several of their experiments. They recognized that even at the treatment it is most frequently at the end of two hours that the crises begin. Little by little the impressions are communicated and reinforced, as is seen in theatrical representations, where the impressions are greatest when there is a large audience, and especially in places where one is free to applaud. This sign of the particular emotions establishes a general emotion, which each one shares to the degree of his sensitiveness. This is what is observed, further, in armies on the day of battle, where the enthusiasm of courage, like panic terrors, spreads with such rapidity. The sound of the drum, military music, the noise of the cannon and the musketry, the cries and the disorder shake the organs and give to the spirits the same movement and raise the imaginations to the same pitch. In this unity of intoxication an impression manifested becomes universal; it encourages the men to charge or determines them to take to flight. The same cause is the origin of revolts; imagination governs the crowd; men gathered in a number are more subject to their senses, reason has less control over them; and when fanaticism presides at these assemblies, it produces the Quakers of the Cevennes. It is to stop this movement, so easily communicated to the spirit, that assemblies are forbidden in disaffected towns. Everywhere example acts on the *morale* and imitation calls the physical part into play; by isolating individuals the spirits are calmed; by separating them one equally causes the cessation of convulsions, always by their nature contagious; a recent example has been seen in the young girls of Saint Roch, who separated were cured of the convulsions, which they had when they were together.

Magnetism, or rather the imagination, is therefore found acting at the theatre, in the army, in numerous assemblies, just as at the tub, acting always by different means but producing similar effects. The tub is surrounded by a crowd of patients; the sensations are continually communicated and given back; the nerves at length must be fatigued by this exercise; they are irritated, and the most sensitive woman gives the signal. Then the cords, everywhere stretched to the same degree and at the same pitch, answer each other and the crises are multiplied; they are mutually reinforced, they become violent. At the same time the men who witness these emotions participate in them in proportion to their nervous sensibility, and those in whom that sensibility is greater and more excitable themselves fall into crisis. This great excitability, partly natural and partly acquired, as well in men as in women, becomes a habit. These sensations felt once or several times, nothing more is needed than to recall the remembrance of them, to excite the imagination to the same pitch in order to produce the same effects. It is always easy to do this by placing the subject in the same circumstances. Then the public treatment is no longer necessary. One need only touch the hypochondria, pass the finger and the iron rod in front of the face; these signs are known. It is not even necessary that they should be employed. It is sufficient that the patients with their eyes blindfolded should believe that these signs are repeated upon them, and should persuade themselves that they are being magnetized; the ideas awake, the sensations are reproduced, the imagination, using its accustomed means and going back by the same paths, makes the same phenomena reappear. It is this that happens to patients of M. Deslon who fall into crisis without the tub and without being excited by the sight of the public treatment.

Touch, imagination, imitation, such therefore are the true causes of the effects attributed to this new agent known by the name of *animal magnetism*, to this fluid which is said to circulate in the body and to communicate itself from one individual to another; such is the result of the experiments of the Commissioners, and of the observations they have made on the means employed, and the effects produced. This agent, this fluid, does not exist, but, chimerical as it is, the idea of it is not new. Some authors, some physicians of the last century, have expressly treated of it in several works. The curious and interesting researches of M. Thouret prove to the public that the theory, the procedures, the effects of animal magnetism proposed in the last century closely resembled those renewed in this one. Magnetism is, therefore, only an old error. This theory is to-day presented with a more imposing apparatus, necessary in a more enlightened century; but none the less it is false. Man seizes, abandons, takes up again the error which pleases him. There are errors which will be eternally dear to humanity—how many times has not astrology reappeared on the earth? Magnetism would tend to bring us back to it. It has been desired to link it to the heavenly influences in order that it might be more seductive, and might attract men by the two hopes which touch them most—that of knowing their future and that of prolonging their life.

There is reason to believe that the imagination is the principal of the three causes just assigned to magnetism. It has been seen by the experiments set forth that it alone suffices to produce crises. Pressure and touch seem, therefore, to serve as preparations for it; it is by touch that the nerves begin to be excited, imitation communicates and diffuses the impressions.

But the imagination is that active and terrible power which works the great effects one sees with astonishment in the public treatment. These effects strike the eyes of every one, whilst the cause is obscure and hidden. When one considers that these effects have in the last centuries seduced men estimable by their worth, by their knowledge, and even by their genius—such as Paracelsus, Van Helmont, Kircher, etc.—one need not be astonished if to-day educated and enlightened persons, if even a large number of physicians, have been deceived by it.

The Commissioners admitted only to the public treatment, where one had neither time nor opportunity for making decisive experiments, might themselves have been led into error. It was necessary to be able to isolate the effects in order to distinguish the causes of them; one must have seen, as they did, the imagination acting in some way partially produce its effects separately and in detail in order to form a conception of the accumulation of these effects, in order to form for oneself an idea of its whole power and realize its prodigies. But this examination requires a sacrifice of time and a number of continuous researches which one has not always the leisure to undertake for one's own instruction or curiosity, which one has not even the right to pursue unless by persons charged as the Commissioners were with the orders of the King and honoured by public confidence.

M. Deslon does not depart from these principles. He declared, in the committee held at the house of M. Franklin on June 9th, that he believed he could state as a fact that the imagination played the largest part in the effects of animal magnetism; he said that that new agent was perhaps only the imagination itself, the power of which is as great as it is little known. He asserts that he has constantly recognized this power in the treatment of his patients, and he likewise asserts that many have been either cured or infinitely relieved. He observed to the Commissioners that the imagination thus directed to the relief of suffering humanity would be a great benefit in the practice of medicine,* and, persuaded of this truth of the power of the imagination, he invited them to study with him the process and its

* M. Deslon had already said, in 1780: "If M. Mesmer had no other secret than that of bringing the imagination effectively into play for the health, would there not still be a marvellous benefit? If the medicine of the imagination were the best, why should not we practise the medicine of the imagination?"—*Observation sur le Magnétisme Animal*, pp. 46, 47.

effects. If M. Deslon is still attached to the first idea, that these effects are due to the action of a fluid communicated from one individual to another by touch, or by one directing a conductor, he will soon recognize with the Commissioners that only one cause is needed for an effect, and that, since imagination is sufficient, the fluid is useless. Doubtless we are surrounded by a fluid which belongs to us; insensible perspiration forms round about us an atmosphere of vapours equally insensible; but this fluid acts only like the atmosphere, can communicate itself only infinitely little by touch, is not directed either by conductors, by the look or the intentions, is not propagated by sound nor reflected by mirrors, and cannot produce in any case the effects attributed to it.

It remains to examine if the crises or the convulsions produced by the procedures of this pretended magnetism in the gatherings around the tub may be useful and cure or relieve patients. Doubtless the imagination of the patients often has a great influence in the cure of their diseases. The effect of it is only known by a general experience, and has not been determined by positive experiments; but it does not appear that one can doubt about it. It is a well known adage that faith saves in medicine; this faith is the product of the imagination; then the imagination acts only by mild methods; it is by diffusing calm in all the senses, in re-establishing order in the functions, in stimulating the whole by hope. Hope is the life of man. Whosoever can give him one helps to give him the other. But when the imagination produces convulsions it acts by violent methods; these methods are almost always destructive. There are very rare cases in which they may be useful; there are desperate cases in which everything must be disturbed in order that everything may be put in order and used. These dangerous agitations can only be used in medicine like poisons, it must be necessity that calls for them and there must be economy in their use. The need is momentary, the disturbance should not be repeated. Far from repeating it the wise physician looks to the means of repairing the necessary evil which it has produced; but in the public magnetic treatment the crises are repeated every day; they are long, violent; the state of these crises being harmful the habit of them can only be disastrous; how can it be thought that a woman whose chest is attacked can without danger have crises of convulsive cough and forced expectoration, and by violent and repeated effort fatigue perhaps tear the lung where it is so difficult to apply balm and palliatives? How can one imagine that a man, whatever be his disease, should require, in order to be cured, to fall into crises where the sight seems to be lost, where the limbs become rigid, where in hurried and involuntary movements he strikes his chest violently—crises which finish by abundant spitting of glairy matter and blood? This blood is neither vitiated nor corrupt; this blood comes from vessels whence it is brought by effort and from whence it comes against the order of Nature. These effects are therefore a real evil and not a curative evil; it is an evil added to the disease whatever that may be.

The crises are attended with another danger. Man is always a slave to custom; habit modifies Nature by successive degrees, but she disposes of it so powerfully that often she changes it almost entirely, and makes it unrecognisable. Who shall assure us that this state of crises, in the first instance impressed at will, will not become habitual? And if this habit thus contracted were often to reproduce the same phenomena in spite of the will, and almost without the help of the imagination, what would be the fate of an individual subject to these violent crises, tormented physically and morally by their unhappy impression, whose days should be divided between apprehension and pain, and whose life would be only a lasting torture? These diseases of the nerves, when they are natural, are the despair of physicians; it is not the function of art to produce them. That art is disastrous which disorders the functions of the animal economy, pushes Nature out of her ordinary path, and multiplies the victims of its derangements. That art is all the more dangerous since it not only aggravates diseases of the nerves by recalling the phenomena and making them degenerate into habit. But if this evil is contagious, as may be suspected, the custom of provoking nervous convulsions and of exciting them in public in the treatments, is a means of spreading them in large towns, and even of afflicting future generations with them, since the diseases and habits of the parents are transmitted to their posterity.

The Commissioners having recognized that this animal magnetic fluid cannot be perceived by any of our senses, that it has had no action either on themselves or on the patients whom they submitted to it; having assured themselves that the pressures and touches cause changes which are seldom favourable in the animal economy and stimulations of the imagination which are always troublesome; having, lastly, demonstrated by decisive experiments that the imagination without magnetism produces convulsions and that magnetism without imagination produces nothing; they have concluded unanimously, in regard to the question of the existence and utility of magnetism, that nothing proves the existence of the animal magnetic fluid; that this non-existent fluid is therefore useless; that the violent effects seen in the public treatment are produced by touch and the imagination set in action, and by that mechanical imitation which leads us in spite of ourselves to repeat that which strikes our senses. And at the same time they feel compelled to add as an important observation that the touches, the repeated action of the imagination, in order to produce crises may be harmful; that the sight of these crises is equally dangerous by reason of the imitation which Nature seems to have imposed upon us a law, and that consequently every public treatment where the methods of magnetism shall be employed can only in the end have disastrous effects.

Paris this day August 11th, 1784.

(Signed) B. FRANKLIN.
MAJAULT.
LE ROY.
SALLIN.
BAILLY.
D'ARCET.
DE BORY.
GUILLOTIN.
LAVOISIER.

NOTE.—If it be objected to the Commissioners that this conclusion includes magnetism in general, instead of relating only the magnetism practised by M. Deslon, the Commissioners will reply that the intention of the King was to get their opinion on animal magnetism. They have, consequently, not gone beyond the terms of their reference; they will further answer that M. Deslon seemed to them acquainted with what are called the principles of magnetism, and that he certainly possesses the means of producing effects and exciting crises. These principles of M. Deslon are the same as those contained in the twenty-seven propositions which M. Mesmer made public in print in 1779. If M. Mesmer now enunciates a wider theory, the Commissioners did not need to know that theory in order to decide as to the existence and the utility of magnetism; they had only to consider the effects. It is by the effects that the existence of a cause is manifested; it is by the same effects that its utility can be demonstrated. Knowledge of the phenomena is obtained by observation long before it is possible to arrive at the theory which links them and explains them. The theory of the magnet does not yet exist, and its phenomena are ascertained by the experience of several centuries. M. Mesmer's theory is here indifferent and superfluous; the practices, the effects—this is what had to be examined. Now it is easy to prove that the essential procedures of magnetism are those of M. Deslon.

M. Deslon was for several years the disciple of M. Mesmer. During that time he constantly saw employed the procedures of animal magnetism and the methods of exciting and directing it.

M. Deslon himself treated patients in M. Mesmer's presence; apart from him he has produced the same effects as when with M. Mesmer. Afterwards brought together, they one and the other united their patients, one and the other indiscriminately treated these patients, and consequently in following the same procedures. The method which M. Deslon follows to-day can, therefore, only be that of M. Mesmer. The effects equally correspond. There are crises as violent as multiplied and announced by the like symptoms in the hands of M. Deslon and in those of M. Mesmer; these effects, therefore, do not belong to a special practice, but to the practice of magnetism in general. The experiments of the Commissioners prove that the effects obtained by M. Deslon are due to touch, to imagination, to imitation. These causes are therefore those of magnetism in general.

The observations of the Commissioners have convinced them that these convulsive crises and violent methods can be useful in medicine only as poisons are; and they have judged, independently of all theory, that everywhere where one will seek to excite convulsions they may become habitual and harmful—they may spread in epidemic form, and may perhaps spread to future generations.

The Commissioners have consequently been bound to conclude that not only the procedures of a particular practice, but the procedures of magnetism in general, might in the long run become disastrous.

(To be continued.)

THE IMPORTANCE OF MAINTAINING THE INDEPENDENCE OF THE MEDICAL PRACTITIONER.

By CHARLES E. S. FLEMMING, M.R.C.S., L.R.C.P.,
Bradford-on-Avon.

A STATE medical service is one of the agents with which many a social reformer hopes to produce his Utopia. Recommendations made in the Minority Report of the last Royal Commission on the Poor Laws, suggestions and threats made by the Chancellor of the Exchequer, and, last but not least, many hints in the last annual report of the Chief Medical Officer of the Board of Education, make it evident that the fear of a service of medical officers under the direct control of the State is not without foundation.

I believe that the two fundamental objections of the medical profession to the Insurance Act are, first, a fear that its members will lose their independence, becoming, not as at present, free servants, but slaves in a particularly undesirable bondage; and, secondly, a belief that this loss of independence would entail a depreciation in the efficiency of the practice of medicine. By independence I mean freedom from lay control—not as citizens, for in this respect they must be as other citizens—but in so far as the practice of their profession and their relations to their patients are concerned. Social reformers are apt in making their calculations to forget that the medical profession cannot be dealt with in the same way as the labour market. Failure to recognize this fact may be as disastrous to some of their schemes as the non-recognition of human sentiment has been to the proposed reforms of some socialists. The point at issue is a question of efficiency, and not an argument between socialism and individualism, between which, after all, there is only a distinction of degree; they meet at their extremes, and in most communities something of both is necessary. Since the perfecting of the State implies the well-being and free initiative of its units, not only must each individual be an altruist, but may justifiably object to the Government interfering with him save when it is necessary for the general good. In other words, while the State should, if necessary, by its help or its compulsion convert to the general benefit what is now the gain of a limited number, it should interfere as little as possible with bargaining between persons or groups of persons.

We have to ascertain the extent to which State interference is necessary for the most beneficial action of the medical profession for the general well-being. A man must not so use his faculties as to interfere with and injure others; at the same time, he must not allow his faculties to be wasted, for this entails an indirect injury on the community. He is expected, and so far may be interfered with, to use his faculties so that the community derives the greatest advantage from them.

Now, is the State, acting through its popularly elected representatives, central or local, likely to have the qualities required for estimating the value and quality of professional work, for dealing with, controlling, and directing the medical profession? It may grant the profession certain monopolies and privileges to be used for the benefit of the community, but the control of the conduct of its members must be vested in a body of medical men responsible to the Government, as, in fact, is the case in this country, to a certain limited extent, through the General Medical Council.

Medical men realize that while the State has given them certain privileges, for which it requires an ample and more than ample return, and controls them so that they can do no harm to the community, it has done little to protect them or assist them. Consequently they have been compelled for their own protection and mutual aid to form a sort of guild, a voluntary association, and while this association purposes to protect and promote its own interests, it has always recognized that its object must equally be the welfare of the nation. While this association proves itself efficient, and as long as it recognizes the claims of the community, it may justly demand the recognition of the Government, and like the old guilds may well be entrusted with the organization of the work of its members. Experience has shown that in such matters voluntary action is much more effective than Government action. But, when a project admitted to be useful and necessary cannot be realized through voluntary or individual effort, or when those concerned in the proposal cannot properly judge of its necessity, or its proper and efficient accomplishment, then should the Government interfere, but so far only as will ensure the suggestion being carried out, and so far only as it may be able on behalf of those concerned, to ensure that such legislation shall be instituted and enforced to the greatest advantage of the people. The question becomes not, to interfere or not to interfere, but how much to interfere? No scientifically constructed scheme will interfere with natural development except to direct its course. In other words the profession may be answerable to, but not under the control of, the State.

When the State found its children were not being educated properly, and that those concerned did not appreciate the necessity for good education, and could not afford, and if they could afford, could not judge, as to its efficiency, it took into its own hands the whole system of education; but there can be little doubt that the system in its extreme officialism is too rigid and does not give results at all proportionate to the energy and money expended. If this is the result in a matter that might be expected to permit of a good deal of dogma, how very much more would it of necessity be with the practice of a science and art as varying, as individualistic, as catholic, as complex, and as theoretical as is that of medicine.

If the State takes over the complete control of the treatment of the people, we may, in the light of what has been done in the case of education, have very grave doubts as to her wisdom and success in the undertaking.

What would be the value to the State of medical men were they all paid servants of the State? How difficult, almost impossible, it would be for them to criticize freely and fearlessly, and with unbiassed minds, suggested alterations in laws and regulations affecting directly or indirectly their work. At present the medical man, owing to his independent position, is a most valuable critic, and his criticism is not only destructive but constructive.

What would be the value of a medical man to his patients? Would the patient always be a free man to choose his own doctor? Owing to the peculiarly and essentially intimate relationship between doctor and patient, it is more important than the official can or will believe that he should be able to do so; his choice may appear illogical, but it is human, and we have to deal with human beings. The most materialistic practitioner will hardly deny the importance or value of suggestion or faith-healing in some form or other. It is essential, therefore, for the success of treatment that the patient shall have confidence in his particular medical attendant, and for very comfort of mind and body, which are important helps to cure, the patient must suit himself, if possible, as to the manner and temperament of his doctor. A patient at present is influenced in his choice by three things—expense, trust, liking. He often does not call in a particular doctor because, much as he likes and trusts, he cannot afford; or when the question of expense does not arise he may trust but not like, or vice versa. He will decide according to circumstances. The State may interfere so as to do away with the question of cost to the advantage of all concerned, but the other points must be left to the free will of the patient and doctor.

Doubtless there is in the practice of medicine, apart from the technical art, an art that appeals neither to the intelligence nor the senses, but that satisfies some desire of the patient. It is difficult, if not impossible, to define—a natural gift of some men, but by most men acquired or properly developed only after a period of endeavour. They are not likely to develop this art, so valuable in actual treatment, if they are bound to work according to special methods.

The scientist and artist is often a man who can work only in his own individual way. Even stress of competition, while it sometimes urges men to action who otherwise could be idle, yet, by the routine it necessitates, so hinders the scientist that he cannot do his best work. One man may work slowly, another rapidly; one apparently indolently, another with unresting vigour. Were each man to have the same amount of work allotted to him, how badly would many individuals of necessity be fitted. Orderly and methodical routine are not everything

in practice; in fact, they are apt at times, by their very rigidity, to interfere with the proper accomplishment of work essentially so varied. Were he to work as an official still more would the practitioner be hindered by the punctilio of his duties without the compensating advantage of the stimulus of competition.

With the artist, failure to take advantage of his moods and mannerisms makes indifferent what otherwise might be great—so with the physician. The science and art of medicine as ordinarily understood are so very far from being perfect or exact, that it is necessary for every medical practitioner to be an investigator, a scientific inquirer, a persevering artist—but the enthusiasm of investigation, unless fed by the fascination of his work, degenerates into the drudgery of the mechanic.

Art, whose ideals are so lofty, could not attain her desire; Science, ever in search of truth through difficult, untravelled paths, could not find her quest; Practice, whose subject is as varying as humanity, could not work its greatest good, if tethered and harassed and crippled by statutes of Parliament and regulations of officials.

Work will be done not for art, but for advancement. I shall be told that it is, under the present conditions of practice, done for gain. So it is, but the two—art of medicine and gain—interfere with one another less than may at first be thought, certainly less than do art and authority. The art of medicine knows no authority but science. Provided that the worker can regulate the price paid for his work, it should only act as an incentive, leaving him largely at liberty as to method and amount of work. A member of a powerful guild can, within reasonable limits, so regulate his wage.

Really good work must be done for the pleasure of the doing; there is a real difference between work that is done to order and work that is done for its own sake. In theory the best work and work done for profit are incompatible, but in practice, if the price paid is regulated by those who know the cost and manner of its production, who know what good work is, and who have a full appreciation of its value, the standard of the work is not likely to suffer.

But what are likely to be the rewards, beyond the living wage, in a State regulated service? Men of marked individuality and strong character would, by their innate force, get promotion, though even then often at the cost of much individualism, but the profession as a whole would tend to the level of any other Government service. The rewards, promotion, commands, and prizes would go to diligence and obedience to rule rather than to originality. The risk of travelling off the beaten track would be too dangerous, and the temptation would be to keep in line.

Merit would be estimated not by the profession who should know it, nor by the patients who might appreciate it, but by the official and according to the official standard. Added to the defects inherent in such a method of judging efficiency and excellence, there would be the danger of other influences superseding real merit. One of the most serious dangers of an officially managed service would be the tendency to methods of routine, not so much in the actual regulations as in the method of thought, and the style of work. This is not a theoretical danger; it has been realized in many Government services, including Government medical services. There would certainly have to be some system of inspection. The inspectors and those to whom they were answerable would doubtless have their ideals as to treatment, and there would be a very real risk of the production of schools of thought or practice. Even as it is, fashions in medicine are mischievous, but we should indeed be going back to bad times if we stereotyped practice as it was stereotyped in the days when orthodoxy was throned and dominant, when individuality was less proper and less profitable.

We feel indignant when we think of the hindrance to its progress that science has suffered in the name of orthodoxy. What official could be expected to practise, to recognize, still less to be enthusiastic about, anything that was not strictly orthodox, at any rate in the eyes of his superiors?

The only superior that the medical man admits in his work is science, and I doubt whether he will ever willingly submit—I trust not—to any other authority.

In a State service with whole-time or salaried appointments, not only is there at once lost the stimulus of competition—so powerful an incentive to a man to do his best for his patient, and in this way valuable to the patient—but that free choice of doctor so well recognized to be in every way in the interest of the patient is taken away, and that particular interest in his patient which a medical man acquires after continued residence in one place, an interest and a knowledge of much value to both, is destroyed, because the medical man, if he has any desire to improve his position, can only do so by being promoted to some other district where the amenities are greater. He cannot enlarge his practice where he is, because his district is already mapped out and surrounded by others similarly limited.

We are told that the reason why a State service is necessary is the need for more active measures for the prevention of disease. I admit the need and the inestimable value of prevention, but I contend that as yet, at any rate—that is, until all disease has been prevented—treatment must continue, that treatment as carried out by the general practitioner must continue.

The medical officer of health deals with the prevention of diseases known to be preventable, diseases the causes of which can be controlled not by treatment of the patient himself, but by treatment of his surroundings. The medical officer of health has to deal with units rather than with human individuals, and so his work cannot be compared with that of the ordinary medical practitioner.

How much of everyday illness is really preventable by legislation? Many have an exaggerated idea on this point; let any general practitioner examine his list of patients at an average time, and I think that he will be surprised to find in how small a proportion of his cases could the illness have been prevented by any practicable legislation. In the case of deaths the proportion due to preventable disease is much larger, but the great majority of illnesses are not fatal.

In some of the arguments it seems to be assumed that the interests of medical practitioners conflict with the interests of public health, and that the State ought to make it the business and the profit of the practitioner to prevent rather than to cure; the patient whose illness has not been prevented will take a different view of the duty of his medical man. However this may be, it is certain that in the past, in spite of the fact that it has not been to his immediate pecuniary interest, the practitioner of medicine has been foremost in endeavouring to prevent sickness and disease; the first to draw attention to faults and wants in sanitation, in food, and in ways of living; and has been the most active, often in spite of opposition or, worse still, apathy, to urge improvements in legislation to enable these evils to be removed. He has done this because he has been an enthusiast in the practice of his profession as a servant of humanity. The art of preventing, alleviating, and curing disease is his first care, and the success of his art is his ambition.

We are told that treatment must be more methodical and better organized, and that this can only be done through a State service working under the medical officer of health. There is no doubt much overlapping and waste, and need for reform, but treatment cannot be put into watertight compartments. I have no desire to belittle the work of the medical officer of health; on the contrary, I believe that it must continue to grow in importance every year, but his work not only does not deal with clinical treatment, but only deals with a part of prevention.

The conception of the work of the general practitioner in the following words, written in support of a State service, is so utterly incomplete as to be wholly misleading: "Simply bringing the patient to the doctor and his guessing the disease, and the administration of appropriate drugs, do not constitute what modern requirements consider necessary for dealing with disease."

Much of the work of the general practitioner consists not only in treating existing disease, but in preventing, by his advice and influence, the recurrence of that disease, or the damaging of the patient's constitution which might lead to other disease, or to his falling a victim to those organisms which the official preventer of disease had not been able to keep away or get under complete control.

Is this work of influencing the life and the health of the patient, and through him of his children and his neighbours, likely to be carried out as effectively by the official medical attendant, the State medical drill sergeant, for

whom the patient may have no particular respect, as by the ordinary family doctor, who is loved, respected, and listened to?

Just as the influence of the independent practitioner on any single patient is greater than that of the official medical officer, so is the sum of the influences of several independent practitioners much greater than that of a body of State servants.

SCIENCE NOTES.

THE result of some experimental investigations, which may be preliminary to a co-ordination of the measurements of x rays and radium, enabling the one to be spoken of in the terms of the other, was brought before the Roentgen Society at the January meeting by Mr. Sidney Russ, B.Sc., of the Cancer Research Laboratory at the Middlesex Hospital. The comparison of the absorption of x rays and the beta and gamma rays of radium by different thicknesses of aluminium, seemed to suggest that the x rays came down rather on the beta side of radium than on the gamma side, the penetration of the rays from an x-ray bulb belonging much more closely to the order of beta penetration than to the other. Mr. Russ showed some very elaborate tables of measurement comparing the ionization produced in the electroscope by gamma rays and x rays respectively, and from those passed on to compare what might be termed biological doses, endeavouring to obtain an equivalent in terms of beta and gamma rays for the rays from an x-ray bulb. He pointed out that while it might appear that the x-ray bulb was equivalent to a very large quantity of radium, the distance factor was a very important one to be reckoned with in the case of the x rays. He took 10 cm. as the distance from the anode at which a piece of tissue was exposed to the rays, 7 cm. representing the distance between anode and glass. As the result of some interesting calculations, for which his paper subsequently to be published must be consulted, he came to the conclusion that in equivalent times the same biological effects per square centimetre irradiated ought to be obtained by means of x rays from an unscreened bulb working at 9 cm. spark gap, the distance of the tissue from the anode being 10 cm., as by means of a beta ray exposure corresponding to 2.75 milligrams of radium bromide. He added that in irradiating malignant tumours in mice his applicator had the almost equal intensity of 2.81 mg. of radium per square centimetre, and on looking through the results obtained he had no doubt as to the approximate accuracy of the figure. The x-ray effect on the tumours was doubtful at half an hour's exposure and decisive after an hour. That of the beta ray was doubtful at half an hour and decisive at an hour and a half. The calculation just made was for surface conditions. The case of screened doses in deep-seated conditions would be quite different, but he took it for granted that the beta rays would be utilized in surface conditions unless people had such a large quantity of radium at their disposal that they could afford the luxury of indulging in gamma rays.

Little more than a year ago attention was called to a remarkable increase in the bacteria in frozen soil observed at the Cornell Experiment Station during the winter of 1909–10. No explanation of the phenomenon was forthcoming at the time, but in the course of the succeeding winter a series of experimental observations was made by Conn. The results of the two years have been carefully compared, and from them certain deductions of general interest have been drawn. The bacteria in question, of which a great variety exist, have been grown artificially and their characters studied, and it has been found that the winter flora differs considerably from the summer flora in soil under approximately the same conditions. The increase of these winter forms raises the important question whether they really grow and multiply at the low temperatures at which they are found or whether their presence in such numbers is to be accounted for by some other explanation. In the case of most bacteria a temperature near freezing point seems to arrest growth and multiplication, but at the same time it is known that certain bacteria grow actively in cold storage, and some have actually been cultivated in frozen ice-cream. These latter facts indicate that bacterial increase in frozen soil is not impossible, and Conn's observations show that that is what really happens. It is not a case, however, of the winter flora overgrowing the summer forms, but rather the arrest of the latter by the extreme cold allowing the winter bacteria to appear in greater numbers. The increase in frozen soil is thus not a direct effect of the low temperature, but is due to the depressing influence of the cold upon that group of bacteria which is able in summer to keep the winter bacteria in check.

The first of Professor MacBride's series of studies in heredity was communicated to the Royal Society in the middle of November last. For a considerable time past MacBride has been attempting to rear young Echinoderms under artificial conditions, and after much patient labour his efforts have been crowned with a satisfactory degree of success. In the tank-room at the Imperial College these tiny pin-head urchins may now be seen at various stages of development, and their behaviour and continued growth form a source of constant interest and concern. These successful experiments have enabled detailed investigation of the effects of crossing different species, and the first of these has been concerned with a cross between the common sea urchin (*Echinus esculentus*) and the heart urchin (*Echinocardium cordatum*). These two genera are sufficiently far apart, systematically, to give rise to well-marked points of difference in their larval forms, and for this reason it has been a matter of no great difficulty to determine the predominance of paternal or maternal characters in the crossed larva. The question of the transmission of these characters in Echinoderms has, it is true, been tackled by more than one biologist, but the results have heretofore been contradictory and inconclusive. This unsatisfactory position has been largely due to the fact that the normal development of the species utilized was only incompletely known, and, in consequence, dependence had to be placed upon characters which are either slightly marked or even variable in the normal larvae. By his careful studies MacBride has been enabled to eliminate those difficulties. In the case under discussion the larva of the heart urchin has a well-marked aboral spike, which is absent in the sea urchin. The eggs of the former fertilized by the sperms of the latter give rise to hybrids which display the paternal character in the absence of the spike. When the converse experiment is attempted, no development takes place beyond the formation of a fertilization membrane, and the eggs eventually undergo cytolysis. This predominance of the paternal character is remarkable from the fact that in previous experiments by De Morgan and Shearer on hybrids between *Echinus esculentus* and *Echinus miliaris*, the larvae always displayed the predominance of maternal characters, while similar results were obtained in the well-known experiments of Loeb, in which the eggs of sea urchins were fertilized by sperms belonging to entirely different classes of animals. MacBride's discovery should stimulate further research, and the results of his future investigations will be awaited with interest.

G. Broesike[1] has made a careful investigation of the function of the various component parts of the seminal fluid in man, and finds that there are four essential constituents. During erection a secretion is produced from Cowper's glands, and perhaps also from urethral glands, which serves mainly to lubricate the mucous membrane of the urethra, and to a slight extent to neutralize its acidity. The latter function, however, is chiefly performed by the prostatic secretion which is distinctly alkaline. It thus tends to protect the sperms, not only in the urethra, but also in the vagina. The semen, containing actively motile sperms, comes from the epididymis and vas deferens, but not from the testis itself. The sperms do not attain their maximum motility till twenty-four to forty-eight hours after they have left the testis, and they probably remain actively motile for a further period of four or five days. The last constituent of the seminal fluid is the alkaline gelatinous secretion from the seminal vesicles, which appears to help in forcing the sperms from the urethra and in retaining them in the vagina. The function of the seminal vesicles is, as the author remarks, chiefly glandular and not receptacular, although it is true they sometimes contain a few mature sperms.

[1] *Arch. mikr. Anat.*, vol. lxxviii, 1911, p. 128.

THE COMPOSITION OF CERTAIN SECRET REMEDIES.*

MEDICINES FOR ALCOHOLISM.

WE have previously reported on some advertised preparations for the cure of inebriety (BRITISH MEDICAL JOURNAL, 1909, vol. i, p. 909; *Secret Remedies*, pp. 162–169), some of which consisted only of such substances as potassium bromide, acetanilid, sodium bicarbonate, etc., while one was a liquid preparation of cinchona. We now report on a small number of others for which very strong claims are made; in each case it is asserted that the patient can be cured without his being aware that drugs are being administered.

THE TEMPERANCIA ASSOCIATION TREATMENT.

The medicines sold under this name are supplied from an address in London; the price charged for a supply (price stated as two guineas) was 21s., for which sixty capsules were sent.

Some extracts from an advertisement of this "treatment" are as follows:

The "Temperancia" Assn organized in 1895 by Dr. Alexr. G. Edison, M.D., L.F.P.S., etc., and the Revd Henry Martin Janeway, D.D., B.A., L.H.D. are accepting Free and paying patients for the Treatment of Alcoholism (Drunkenness in any form).

With the methods adopted by this Association all desire for alcoholic stimulants is permanently destroyed, a distaste for alcohol created, and the nervous and diseased system restored to a healthy and natural condition, at your own home, hotel, or while at work, without publicity or inconvenience.

The treatment can be taken either voluntarily, or those who, through "the grasp of drink," fail to realise their peril, and will not listen to reason, can be cured SECRETLY, against their own free will, and without their co-operation, by any member of the family, with the special course prepared for this purpose. Either course is perfectly harmless, adapted for both sexes, of any age, even of the most delicate health, and is endorsed by the Medical profession, the Press, the Clergy, and thousands of cured patients.

Application to the address given brought a booklet on the "treatment," various leaflets, and a list of questions to be answered. The following extracts are from the booklet:

The treatment is prepared in Two distinct forms, viz.:—

LIQUID { to be used in all cases when a patient treats himself voluntarily, with his own free will and

CAPSULES { To be used in all cases where a patient is to be treated secretly, without his knowledge.

The treatment in CAPSULE form is absolutely tasteless and odourless, and is placed in coffee, tea, soup, or any other convenient food. . . . To do good by stealth is enjoined upon us by the teachings of the highest authorities, and is in strict accordance with the highest morality.

It does not matter whether a patient is treated secretly or voluntarily, the results are the same. Almost from the very first day of its use the appetite improves, he eats and sleeps better, he becomes less restless than usual, his eyes become bright, his hands steady, the brain clear, and the spirit buoyant. . . .

The "Temperancia" Treatment, both the Liquid or Capsule, can be given with utmost *safety*. As already explained, it does *not* contain any drugs, poison or minerals of any description, but it is entirely of a vegetable preparation. An overdose is perfectly harmless; it will not injure a man, woman, or child even of the most delicate health. . . .

Both our Liquid and Capsule treatment are prepared in courses. Each course of the Liquid treatment contains Two (2) full-sized bottles, and each course of the Capsules Two (2) full sized packages. The cost per course, either the Liquid or Capsules, is Two Guineas (£2/2/0), or Two courses, if ordered at one time, Three Pounds Ten Shillings (£3/10/0). . . .

It is impossible to estimate the time required to effect a permanent cure in any individual case . . . the "Temperancia" Treatment often effects a complete cure in but a few days.

After the lapse of an interval, in which no order was sent, a circular letter was received, from which the following extracts are quoted:

We are indeed surprised not having received from you an order for the treatment prepared by this Association. . . . There is only one conclusion we can arrive at, namely, that financial circumstances make the cost of a treatment prohibitive to you. Should this be the case we would like to say, that this Association being at all times willing to extend a helping hand to everybody, is prepared to treat your patient for a fee of only 21s. per course.

One guinea was then sent for a supply of capsules, together with answers to the list of questions. These questions were as follows, the answers given being here printed in italics:

Name or initials of patient.
Age? *34.*
Sex? *M.*
Married? *Yes.*
How long? *7 years.*
Any children? *2.*
Height? *5ft. 11.*
Weight? *12 stone.*
Complexion? *Fair.*
Occupation? *Clerk.*
Works hard? *Yes.*
Is the patient to be treated secretly or voluntarily? *Secretly.*
How long since he commenced drinking? *Four years.*
Nature of liquor used? *Whisky; and other spirits.*
Quantity per day, or as near as possible? *Varies from 2 glasses to a bottle or more.*
Does he drink during the night? *No.*
Before breakfast? *Sometimes.*
Does he ever become drunk? *Yes.*
Does he drink daily or periodically? *Daily; but to excess only periodically.*
If periodically, how often? and how long does each bout last? *Sometimes every week, sometimes once in several weeks. One or two days.*
When did he have his last bout? *A week ago.*
What mental effect does he suffer with from drink? *Excitement; sometimes delusions.*
How is his appetite, sleep, and digestion, both when drunk or sober? *Good when sober; not bad when drinking.*
Is he nervous, irritable, or phlegmatic? *Rather irritable.*
Is he getting thinner or stouter? *Not changing.*
Constipated? *No.*
Does he ever complain of heart trouble? *No.*
Any disease he was or is suffering with? *No.*
If so, what was the doctor's advice?
Taking any medicine at present, and for what purpose? *No.*
Any of the parents or grandparents addited to drink? (state which, and if not alive, give cause of death) *No.*
Did the patient ever have Delirium Tremens? How often, and when? *Two or three times last year.*
Does he use Tobacco? (state what form, quantity, and if he inhales) *Pipe and cigars; about 3 oz. and 6 or 8 cigars a week. Does not inhale.*
Does he use any Narcotic Drugs? (state which, quantity per day, and how long used) *No.*
Has he ever been treated for the liquor habit? (state when, what treatment, if voluntarily, how long treated, cost of same and results) *No.*
P.S.—Write fully on the other side any additional information regarding the patient's past and present condition that the physician should know of.

Two boxes of capsules were received, each containing thirty, with no labels. A written letter was received separately, in which the following directions were given:

For the first two days take three capsules daily, four the third day, five the fourth, and then six every day until the course is finished.

(The sixty would thus last eleven days, and leave three capsules over.)

The way to take them is in either hot tea, coffee, or soup. Empty the contents into the cup, not put the whole capsule, and thoroughly stirr until dissolved. Eat plain wholesome food, good fruit, and keep the bowels well open.

The best time for taking the powders is on arising in the morning, mid-day, and before retiring at night. Should you find it difficult to give the six daily, two may be taken at one time, but not more, as they might taste, and they must be well stirred, and dissolved.

(They were previously described as "absolutely tasteless.")

The contents of the capsules consisted of a light brown powder, the average amount in one being 8 grains. Determination of the weight of the contents of several capsules singly, taken without selection, showed them to vary from 5 grains to 9.4 grains. Analysis showed the powder to consist of powdered cinchona, sugar of milk, and magnesium carbonate. The amount of cinchona was ascertained by weighing the fibre after removing other ingredients with solvents and comparing it with the fibre

* Previous articles of this series were published in the following issues of the BRITISH MEDICAL JOURNAL: 1901, vol. ii, p. 1585; 1906, vol. ii, pp. 27, 1645; 1907, vol. i, p. 213; vol. ii, pp. 24, 160, 209, 393, 530, 1653; 1908, vol. i, pp. 833, 942, 1373; vol. ii, pp. 86, 505, 1022, 1110, 1193, 1285, 1566, 1697, 1875; 1909, vol. i, pp. 31, 909, 1128; vol. ii, p. 1419; 1910, vol. i, pp. 151, 213, 393, 1035, 1053, 1120; vol. ii, pp. 982, 1350, 1928; 1911, vol. i, pp. 26, 91, 823, 1324; vol. ii, pp. 32, 77, 466, 767, 854, 1543; 1912, vol. i, p. 26. Analyses are also to be found in *Secret Remedies* (chapters i and ii). London: British Medical Association, 429, Strand. Price 1s., post free 1s. 3d.

left by powdered cinchona when similarly treated; and also independently by determining the amount of alkaloid present. Both results showed the cinchona to form about 13 per cent. of the powder; milk-sugar was found to amount to 55 per cent., and the magnesium carbonate to about 32 per cent. Each capsule would thus contain about 1 grain of cinchona. The estimated cost of the powders for sixty capsules is 1d.

Edward J. Woods Treatment.

The medicines sold under this name are supplied by Edward J. Woods, Ltd., London. The price charged is 2 guineas, for which 60 powders and 68 tablets were sent.

Advertisements are usually accompanied with a picture of a man's head, purporting to represent the advertiser. The following extracts from such an advertisement show their general tenor:

I was a Heavy Drinker
Consumed quart of whisky every 24 hours
Cured in 3 days

If you know anyone who drinks alcohol in any form, regularly or periodically, let me send my Free Book, "Confessions of an Alcohol Slave."

I drank beer at first, then gradually developed into a drinker of strong liquors. When drinking heavily I did not hesitate to pawn my coat or break a public house window to get spirits. For long periods I drank over a quart of whisky, rum or gin daily. And some mixed drinks and beer additionally! . . .

For 16 years I kept it up, and I was regarded as a hopeless case. Various "cures" did me no good. But now I have a joyful message for drinkers and Mothers, Wives, Sisters.

While drifting from bad to worse, as all slaves of King Alcohol do, I unexpectedly found a true cure. It was (and is) genuine. It saved my life. My health was quickly restored, I became and am a respectable man, enjoying every benefit of freedom from the accursed alcohol. I speedily and naturally lost all desire for drink. I took less and less. I began to prefer tea, coffee, and other non-alcoholic liquids; the craving for liquor ceased, I could sleep perfectly, my stomach became well, and I recovered from other ailments which I now know were due to my indulgence in strong drink.

Wonderful.

My cure took 3 days; if I had relied upon will power or faith I should still be a drunkard, because an alcohol slave has no will power while drinking. I rejoiced so greatly at having found a true cure that I decided to devote my life to removing the curse from others. My success has been marvellous. . . .

What I promise is absolutely guaranteed. My remedy is for either steady or periodical drinkers. Think of it, a complete and permanent home cure between Friday night and Monday night—or any other 72 hours!

Men, or Women, Any Age, Quickly Cured. . . .

On application to the address given, the "Confession" referred to above and various other papers were sent. From these it appears that the "Treatment" is of American origin, and the business seems to have attained considerable dimensions in America before being established in England. Two sets of remedies are supplied—"the A Set of Remedies to be given with the knowledge and consent of the person," and "the B Set for conquering his drink habit secretly, so that he will gradually form a disgust for alcoholic drinks of all kinds and will never know what saved him unless you chose to tell him." One of the papers was an 'Information Form No. A 4," which was as follows—the answers given to the various questions are printed in italics:

Sex? *M.*
Age? *34* years.
Married? *Yes.*
Approximate weight? *12* stone lbs.
Height about? *5* ft. *11* in.
Steady drinker, or does he (or she) drink in a bout (spree) after keeping sober for some time? *Steady drinker in slight excess; bout occasionally.*
What kind of alcoholic drink mostly taken? *Whiskey and other spirits.*
About how much every 24 hours? *Varies from 2 or 3 glasses to 2 bottles.*
Has person ever had delusions? *Yes.*
Fits? *No.*
Delirium tremens? *3 times.*
Insanity? *No.*
Apoplexy? *No.*
Will remedies be given with or without person's knowlege? *Without.*
Do bowels move freely, or are they constipated? *Alright.*
About how many years has person been accustomed to use of alcoholic drinks? *All his life; only to excess for about 4 years.*
Does person sleep soundly through the night? *Usually.*
Does person need to drink alcohol during the night? *Not as a rule.*
Is person drinking at present? *Yes.*
What is occupation (or nature of same) and how much outdoor exercise is usually taken? *Clerk. Does fair amount of walking and little cycling.*
Does person prefer to drink with company, or quietly, alone? *Both.*
Are any medicines or drugs being taken for any purpose? *No.*
Here please give further details of case.

The preparations sent (B set) consisted of 60 powders and 68 tablets. They were accompanied by a circular letter, in which the following directions were given:

The chief rule is that you are to give three No. 777 Powders and three No. 1010 Tablets every day, if you can, and that these are to be given at different times, not all together. If you miss doses, you are not to make them up.

If the dose should seem to be too strong, it can be reduced by giving a half or quarter Powder or Tablet. But do not increase the doses until you have sent me the report, which should come at the end of your having given 42 each of the Powders and Tablets, i.e., about two weeks. If it takes a longer period to give these, then your report can be delayed accordingly.

Be cheerful and optimistic. Maintain your perseverance and kindly temper. Watch and wait! Success may come slowly but it will come surely.

This is somewhat different from "a complete and permanent home cure between Friday night and Monday night, or any other 72 hours!" An extract from a pamphlet of general directions sent with the medicines is:

Even if six months are required to accomplish the desired purpose, it is a highly satisfactory reward for the expense, time, and effort used.

I beg of you, therefore, to treat this matter with calmness. Do not write me that you are utterly disappointed, that you feel as if nothing can ever do any good, and other similar remarks, but keep perseveringly on.

From another leaflet it appears that Edward J. Woods, Ltd., does business in other articles as well. A list is given of twenty-six medicines supplied by the company, which includes such varied ones as:

No. 444.—Blood Purifier, Liver Regulator and Stomach Improver.
No. 555.—Aphrodisiac tablets.
No. 1111.—Tablets for the kidneys.
No. 1616.—Rheumatism, gout, lumbago, neuralgia and sciatica remedy.
No. 2020.—Tablets to prevent incontinence of urine.
No. 2222.—Anti-deafness tablets.
No. 4444.—Asthma tablets.
No. 5555.—Preparation for darkening grey or white hair to natural black or dark brown.
No. 1212.—Special method for reduction of superfluous fat.
No. 3333.—Anti-nicotine Tablets.
No. 1515.—Female Remedy.
No. 44.—Flesh Developing Cream.

The powders had an average weight of 9.9 grains, single ones varying from 7.2 to 11.9 grains. Analysis showed them to contain:

Tartar emetic	3.6 per cent.
Sugar of milk	96.4 ,,

No trace of any other substance was found. A powder of average weight would thus contain 0.35 grain of tartar emetic.

The tablets had an average weight of 1.6 grains. Analysis showed them to contain

Tartar emetic	13.2 per cent.
Boric acid	10.7 ,,
Sugar of milk	76.1 ,,

No trace of any other substance was found. One tablet would thus contain 0.2 grain of tartar emetic, and the daily dose of three powders and three tablets would contain 1.65 grains.

The estimated cost of materials for 60 powders and 68 tablets is about 1d.

Alcola.

Alcola is supplied by "Physicians Co-operative Association," Chicago, and the price charged for it is £1.

The method of advertising which appears to be adopted in this case is for a Mrs. Anderson, Hillburn, New York, to advertise offering to send, without charge, information about a medicine which cured her husband of the drink habit. On writing to the address given, a lithographed letter was received purporting to be from Mrs. Anderson; its nature is shown by the following extracts:

My dear friend

I have just read your letter asking me how I cured my husband of drinking, and I will answer it at once as I am sure

that you are anxious to drive drunkeness from your home just as soon as you possibly can.

Mr. Anderson was a hard drinker for over 20 years and the disease had got such a firm hold that it was impossible for him to shake it off and it continued to grow worse and worse with no sign of ever stopping.

Just about this time I received a letter from a lady telling me about a remedy called Alcola which she said had never been known to fail and she urged me to send for it at once as she knew it would certainly cure.

I had already tried about every remedy that I had seen advertised for the cure of drunkenness but none of them did any good whatever and I was tired of spending my monev for nothing but you know a person especially a woman will do anything to save her family and home and I made up my mind to make one more effort to cure Mr. Anderson if it was possible so I managed after some trouble to get the money and took her advice and sent for it and gave it as directed and in a very short time he lost all the terrible craving for liquor that he had had for so long. His health improved in every way too. This was about eight years ago and he has never drank since. . . . The Physicians Co-operative Association 309 to 311 Michigan Ave Chicago Ill. are the only ones who prepare and sell Alcola and I will write them to-day and ask them to send you full information. . . .

A little later a long circular letter was received from the "Physicians Co-operative Association," together with a booklet in which it was stated that:

Alcola is the very best treatment for drunkenness that you can possibly obtain. . . .

It cures all stages of the disease, from the beginner to the one who has drank for years and is thought beyond hope. It makes no difference whether the disease was inherited or acquired nor what kind of liquor the patient uses. Alcola is absolutely harmless. . . . Alcola does not contain even a trace of opium, morphine, cocaine, chloral, cannabis indica or any other dangerous narcotic or habit-producing drug. . . .

Alcola is prepared either to be taken with the patient's knowledge or to be given secretly. When you send your order state which treatment you wish.

A short list of questions, as follows, was also sent; the answers given are printed in italics:

Information Regarding Patient.

Age. *34.*
Occupation. *Clerk.*
How long has patient drank? *5 years.*
Does he keep liquor in the house? *Yes.*
Has he any chronic disease that you know of? *No.*
How is his general health? *Fair otherwise.*
Will the treatment be given secretly? *Yes.*
Are you yourself to give treatment to the patient? *Yes.*
What relation is patient to you? *None; we live together.*

IMPORTANT.

Will tablet be given twice a day or three times? *Twice.*
Will you begin treatment at once? *Yes.*

The medicines sent consisted of three boxes of tablets, labelled respectively No. 1, No. 2, and No. 3. They were accompanied by a long printed paper of directions, a long circular letter, a "Report Blank," and other papers giving particulars of "our Co-operative Plan," by which the purchaser obtains a commission on sales to others resulting from his introduction of "Alcola." The chief parts of the directions are:

Tablets Nos. 1 and 2 are to be given as follows: One tablet three times a day at meal time. Give alternately, that is, a tablet of No. 1 at one meal, No. 2 at the next meal, No. 1 the next, No. 2 the next, and so on.

They can be given in almost any liquid except water, but strong tea, coffee, highly seasoned soups, etc., are preferred. . . .

Tablet No. 3. This tablet is to be used only when the patient has been drinking to a noticeable degree, or if the patient is a moderate daily drinker, give every third day.

This tablet should be given as soon after the patient has been drinking as is possible, that is, if the patient comes home under the influence of Drink give No. 3 at once, if you can. If patient does not drink, do not use No. 3.

After you have been using the treatment three weeks fill out the enclosed report blank carefully and fully and send it to us. This is a most important point, for in this way we can judge how your patient is getting along, and if necessary can give you further advice that we are sure will be of great assistance and value to you.

It is absolutely impossible for any physician to tell the length of time or the amount of medicine it will require to cure any particular case. . . .

The length of time it requires to effect a cure depends entirely upon the patient's susceptibility to the action of the medicine. . . .

. . . we even find cases where but little improvement is noticed with the use of the first package . . . when these cases are found it will be necessary to continue the use of ALCOLA longer than the average amount of time in order to effect a complete cure.

No. 1 Tablets.—The box contained 62 tablets of a pale yellow colour; the average weight of one was 5.7 grains. Analysis showed the presence of—

Strychnine	... ...	0.12 per cent.
Caffeine	... ...	4.72 ,,
Sugar of milk	... ...	86.9 ,,
Talc	... ...	4.1 ,,

With starch, a little gum or dextrin, and a trace of colouring matter.

Each tablet would thus contain 0.007 grain of strychnine and 0.26 grain of caffeine.

No. 2 Tablets.—The box contained 63 tablets of a light chocolate colour; the average weight of one was 5.7 grains. Analysis showed the presence of—

Strychnine	... ...	0.2 per cent.*
Boric acid	... ...	4.4 per cent.
Sugar of milk	... ...	82.8 ,,
Talc	... ...	3.0 ,,

With starch and colouring matter.

*Approximately.

A trace of vegetable débris was present, perhaps from a small quantity of some vegetable extract showing no distinctive characters. The colouring matter was basic in nature and could not be separated from the strychnine; hence the figure for the latter is approximate only.

Each tablet would thus contain about 0.011 grain of strychnine.

No. 3 Tablets.—The box contained 29 tablets, which were greyish with a pink tinge; the average weight of one was 2.9 grains. Analysis showed the presence of—

Tartar emetic	... ...	16.7 per cent.
Calcium sulphate	... ...	61.4 ,,
Talc	... ...	3.1 ,,

With starch and colouring matter.

A trace of a pungent substance was present resembiing the pungent principle of pepper, and a trace of vegetable débris which may have been from a small quantity of a vegetable extract showing no distinctive characters.

Each tablet would thus contain 0.48 grain of tartar emetic. The estimated cost of the ingredients for all the tablets in the three boxes is about 1¾d.

THE ASYLUM OFFICERS (EMPLOYMENT, PENSIONS AND SUPERANNUATION) BILL.

REPORT FROM THE SELECT COMMITTEE.*

IN our issue of September 23rd, 1911, we published a brief and general account of the Asylum Officers' Bill, 1911, as amended by a Select Committee, but did not touch upon the evidence heard and discussed by the committee.

The committee consisted of eighteen members; eleven sittings were held and twenty witnesses were heard. The views of the Lunacy Commissioners for England and Wales were given by Dr. Marriott Cooke, and those of the Lunacy Commissioners for Scotland by Mr. T. W. L. Spence, Secretary to the General Board of Lunacy for Scotland. The Irish Board of Lunacy was not represented. Mr. Moylan gave evidence as to the views of the Home Office on the bill as drafted; Mr. H. F. Keene those of the London County Council Asylums Committee; Drs. D. M. Cassidy and F. Perceval those of the Lancashire Asylums Board; and Mr. J. W. Bund, Member of the Executive of the County Councils Association and of the Barnsley Hall (Worcestershire) Visiting Committee, gave the views of the County Councils Association. Dr. T. S. Clouston represented the whole of the working royal asylums of Scotland, and Mr. T. Munro (Clerk and Treasurer, Lanark District Asylum) gave evidence on behalf of practically all the Scottish District Lunacy Boards. Of associations not being administrative bodies, the Medico-Psychological Association of Great Britain and Ireland was represented by Dr. C. H. Bond; the Asylum Workers' Association by Dr. G. E. Shuttleworth (honorary secretary), Miss M. Lord (matron of Banstead Asylum), Dr. M. J. Nolan (President of the Irish Division), Mrs. O'Connor (matron of the Ballinasloe Asylum), and Mr. Martin Brophy (attendant, Maryborough

*Report and Special Report from the Select Committee on the Asylums Officers (Employment, Pensions, and Superannuation) Bill, together with the Proceedings of the Committee, Minutes of Evidence, and Appendices. London: Wyman and Sons, Limited. 1911. (1s. 6d.)

Asylum), the last three named on behalf of the Irish Division of this Association. The Rev. H. M. S. Bankart (secretary), an active promoter of the bill as drafted, spoke on behalf of the National Asylum Workers' Union. Mr. Harry Arnold (charge attendant) gave the views of the attendants at the Three Counties Asylum, and Mr. Jas. S. Marr (house steward, Woodilee Asylum, Glasgow) and Mr. G. Pirie (superintendent, Paisley District Asylum) spoke to particular clauses of the bill. Lastly, Mr. W. K. Jarman (National Debt Office) gave some actuarial calculations as to the extra cost involved by the bill.

It will be seen that the witnesses were thoroughly representative of all the various interests likely to be affected by the passing of this bill, and of all shades of opinion upon it, from the vigorously expressed views of Mr. Bankart, the protagonist and organizer of the National Asylum Workers' Union, whose executive drafted the bill, through varying degrees of partial approval from the English Lunacy Commissioners and other bodies to the cold antagonism of visiting committees to the clauses affecting finance. Perusal of the proceedings of the committee also affords ample evidence of the great care taken by the committee to thoroughly consider in an impartial spirit every essential point.

The bill as drafted—and it may be parenthetically remarked here that the drafting of the bill incurred a good deal of hearty condemnation—fell into two parts; the first, given in Clause 1, establishing a statutory limitation of the maximum hours of employment to sixty hours per week, and Clauses 2 to 6 amending the Asylums Officers' Superannuation Act of 1909.

Dealing first with the evidence given to the committee upon Clause 1, the report shows a wide diversity of opinion, the points of conflict being: (1) The advisability or inadvisability of fixing any statutory limit; (2) the existence or non-existence of any real grievance or dissatisfaction of subordinate asylum staffs on account of their hours of labour; and (3) conceding there was a case for the fixing of a maximum, what this maximum should be, and in what manner it should be secured.

On the first point Dr. Clouston ably opposed the fixing by statute of any limit, on the ground that it would work badly for the patient; that as soon as the asylum committees found their expenses going up in consequence of a reduction of hours in labour they would be bound to effect economies in other directions, by reducing the proportion of staff to patients, by cutting off extras and luxuries to the patients, and that also it would tend to make asylum boards and their staff regard the financial rather than the curative side of their functions. The directly opposed view was given by Mr. Bankart, who urged the necessity of State interference, on the grounds of "the abominable conditions of life in an asylum for the workers," the trying and fearful monotony of the work, its dangers and humiliations, the unduly long hours of labour, and the very real dissatisfaction on this account of the subordinate staffs, and the "hopeless case" of these latter if left to the asylum committees and their medical superintendents, the majority of whom he stigmatized as "unfair." Between these extreme views were the views of the majority of witnesses. Dr. Marriott Cooke, admitting that the hours of labour were too long in many asylums—giving an average, he estimated of eighty-four hours per week—and speaking on behalf of the Lunacy Commissioners, expressed his grave doubts of statutory limitation, and inclined to the view that the public attention given to this matter would be sufficient to bring asylum committees to see their responsibilities in this respect. In the same way Mr. Spence deprecated for Scotland statutory limitation, and suggested instead the drawing up of time tables by district lunacy boards, these time tables to receive the sanction of the General Board of Lunacy, with, if necessary, the sanction also of the Secretary for Scotland. Mr. Moylan, of the Home Office, did not express any official views on this point, the Home Office having no direct jurisdiction, but he handed in to the committee the views expressed by seventeen visiting committees, unanimously adverse to the whole of Clause 1.

Drs. Cassidy and Perceval, speaking for the Lancashire Asylums Boards and Asylums Committees, submitted that there was no case, so far as their asylums were concerned, for State interference with the discretion of the asylums committees in the matter of hours of labour, though under cross-examination they admitted that an Act of Parliament might step in by prescribing a minimum of leave. On the other hand, Dr. Bond, speaking for the Medico-Psychological Association of Great Britain and Ireland, had no objection to urge against a statutory limit; and Dr. Shuttleworth, speaking for the Asylum Workers' Association, and after stating that the hours worked by attendants were often excessive, said that the fixing of a statutory maximum by Act of Parliament, leaving the visiting committees to arrange anything they chose under that maximum, would be the most reasonable way of meeting the case. Notwithstanding powerful reasons against it, however, the Select Committtee have incorporated statutory limitation of the hours of labour in the bill. As to the existence or non-existence of real dissatisfaction with the hours of labour among the attendants, the evidence was conflicting, only one or two of the witnesses affirming that there was any real grievance on this score, and the great majority, composed of heads of departments, contending that the proposed reduction to sixty hours was unreasonable and impracticable. The general opinion, however, was that a seventy or seventy-two hours' week was reasonable, and, as already announced, seventy hours is the maximum arrived at by the Select Committee.

During the discussion of this question of hours of labour many cognate points were touched upon—for example, the time allowance for meals, the counting or not of emergency duty, attendance at concerts and amusements as work or not, and so on. The evidence given revealed great incongruities in these respects, and, admitting the need for statutory limitations, the prescription of uniform standards arrived at by the committee* seems to be fair. Also it should be said that the Select Committee altered the money repayment for overtime provided by the bill as drafted into repayment by time.

Turning to the remaining clauses, Clause 2 of the amended bill confers the right to pension "upon any female established officer or servant of the first class who has been in the service of any asylum for not less than twenty-five years, whatever her age." The evidence in favour of this provision was practically unanimous. The bill as drafted included men also within this provision, but the Select Committee did not consider the case made out for altering the Act of 1909, which confers the right to pension at the age of 55 when twenty years' service have been completed.

Clause 3 of the amended bill extends the power, conferred by the principal Act, to grant a gratuity or special superannuation allowance to established officers or servants *injured* in the discharge of their duty, to any such officer or servant who is permanently incapacitated for asylum duties as the result of an *illness* contracted without his own default and clearly attributable to the nature of the duties assigned to him. Mr. Moylan pointed out that in the original bill for the principal Act "confirmed illness (bodily or mental)" was included, and that after it had been shown that every case of neurasthenia could be put down as "illness clearly attributable to the duties of his employment," illness as ground for a special pension was omitted from the bill. In the 1911 amended bill this proposal is reinstated. As a matter of fact, in the drafted bill the power to confer gratuities extended to the victims of accidents or illness irrespective of its causation, but, according to Mr. Bankart, this was an oversight.

Passing by Clause 4, which refers to gratuities and allowances to dependants, Clause 5 enables visiting committees to grant gratuities to female officers or servants retiring with ten years' service.

Clause 6 of the amended bill deals with a very important matter—the dismissal of officers and servants. Under Section 276 of the Lunacy Act, 1890, it does not appear that the power of summary dismissal is legally vested in the medical superintendent, but is vested in the visiting committee. The evidence, however, revealed great irregularity in practice in this respect. In Ireland and under the Asylums Committee of the London County Council the strict legal procedure is followed. In Scotland, however, the power of summary dismissal is specifically delegated to the medical superintendent under rules under

* BRITISH MEDICAL JOURNAL, September 23rd

the Act of 1857, and in many English provincial asylums summary dismissal is, in fact, exercised by the superintendent.

The bill as drafted permitted the medical superintendent merely a power of suspension, which should become operative and effective only when confirmed by the visiting commitee. Under this heading Mr. Bankart stated that ordinary British justice did not exist in asylums, and that there were cases of wrongful dismissal which were never inquired into by the committee. Dr. Clouston, on the other hand, firmly maintained the necessity of leaving the power of summary dismissal in the hands of the medical superintendent on disciplinary grounds, and in this he was supported by other witnesses. Nevertheless, Clause 6 rules that this power shall be exercised only by the visiting committee, and shall not be delegated by them to any officer, though general rules may be made giving the medical superintendent power to suspend pending the decision of the visiting committee. Further, any person whom it is proposed to dismiss shall be entitled to receive notice of the meeting of the visiting committee at which his dismissal is to be considered.

Clause 7, as already announced, substitutes five for ten years as the basis of calculation of the average salary and emoluments for the purposes of pension.

Clause 8 refers to the distribution of grants in case of death or pensions being illegitimate.

Clause 9 deals with the method of reckoning length of service in parochial asylums in Scotland and attempts to rectify an unfortunate situation which has arisen in Scotland. In that country the insane are looked after either in district asylums, which correspond to county and borough asylums in England; or in parochial asylums, whose work is practically identical with district asylums; and in royal asylums, which are mental hospitals, supported by endowments, subscriptions, and, in the case of pauper patients, by contracts with parishes. The Act of 1909 applies only, according to the reading of the General Board of Lunacy of Scotland, to district asylums, and in consequence service in parochial asylums—excepting two parochial asylums, specifically included in the 1909 Act—does not count for pension. At Woodilee Asylum, for example, thirty-nine officers lost from one to twenty-six years' service. This anomaly is redressed by Clause 9 of the amended bill.

Clause 10 transfers the powers and duties of the Secretary of State under the principal Act to the Commissioners in Lunacy. Any dispute, therefore, arising under the principal Act as to whether a person is entitled to be treated as an established officer or servant, or as to the class of established officers to which a person belongs, or as to whether a nurse or attendant is one "whose primary duty is the care or charge of patients" within the meaning of the Act shall be determined by the Commissioners, whose decision shall be final.

This appears to be the most satisfactory way of disposing of a fertile source of trouble and in some cases hardship. Section 15 of the principal Act reads: "In the case of any dispute as to the right to superannuation allowance of any officer or servant of an asylum, or as to the amount of the superannuation allowance to which such officer or servant is entitled, such dispute shall be settled by the Secretary of State, whose decision shall be final." In practice there have been wide differences in the decision by visiting committees whether an officer was an established officer or servant or not, and whether they should be placed in Class 1 or Class 2 of established officers. Officers who in other asylums have been placed in the established class have in certain asylums been excluded and thus deprived of any opportunity of pension. Dr. Shuttleworth, for example, related the case of a chaplain in one of the Yorkshire asylums, who after twenty-five years' service has been excluded altogether, and many anomalies with regard to the classifying as Class 1 or Class 2.

Appeals have been made to the Secretary of State, but the law officers of the Crown have advised that upon these points there is no appeal to the Secretary of State, and that the remedy of any officer who considers himself injured in this respect is by mandamus. Clause 10 of the amended bill remedies this matter "as from the commencement of the Act."

Lastly, Clause 11 enables established officers or servants to adopt the principal Act as now amended, and Clause 12 cites the short title and construction.

LITERARY NOTES.

MESSRS. MACMILLAN AND CO. have in the press a work entitled *National Insurance*, by Messrs. A. S. Comyns Carr and W. H. Stuart Garnett, Barristers-at-Law, and Dr. J. H. Taylor of Salford. The scope of the work may be gathered from the following list of contents: Table of cases. Table of statutes. Chapter I, The employer under both parts of the Act; Chapter II, The insured person under both parts of the Act; Chapter III, Administration: the Insurance Commissioners, Insurance Committees, Approved Societies, and their relation to existing local authorities; Chapter IV, The medical profession; Chapter V, Sanatorium and maternity benefits and the public health; Chapter VI, Finance. The National Insurance Act (1911)—Part I, Part II, Part III, the Schedules. Index. Mr. Lloyd George contributes a preface, a fact which may be taken as giving the work a kind of official *imprimatur*.

We learn from the *Boston Medical and Surgical Journal* (December 31st, 1911) that Professor Morris Jastrow, of the University of Pennsylvania, in his *Aspects of Religious Belief and Practice in Babylonia and Assyria*, gives a translation of an ancient incantation ritual which has obvious analogies in its spirit to Mrs. Eddy's *Science and Health*, and might be regarded by some as superior to that work in style and dramatic effectiveness. "Away, away, far away, far away!" the primitive sufferer from the "claim" of disease is to exclaim. "For shame, for shame, fly away, fly away! Round about face, away, far away! Out of my body, away! Out of my body, for shame! Out out of my body, fly away! Out of my body, face away! Out of my body, go away! Into my body do not return! To my body do not approach. My body do not oppress." It seems to us that this incantation contains the quintessence of Christian Science practice.

It is known to all lovers of "R. L. S." that in his search for health he spent some time at Saranac Lake. In the *New York Medical Record* of December 16th, an account of his stay there is given. In 1887, accompanied by Lloyd Osborne, his stepson and literary collaborator, he established himself for the winter in the yellow Baker Cottage. Ever since Stevenson stayed there this cottage has been a kind of shrine which devotees have never failed to visit. We are told that on a visitor stepping out of the train he is generally asked: "Don't you want to see the yellow cottage that Robert Louis Stevenson occupied?" The Adirondack winter was trying to him, but his health improved. In the cottage was a large fireplace, where logs were ever burning brightly. He loved to sit by this log fire and talk. Windows were tightly shut, and he smoked cigarettes incessantly. Dr. Trudeau, who himself originally went there in search of health, has stated that Stevenson "used to rail in such forcible but beautiful and picturesque language at the cold, at the snow, at the cloudy days and the succession of them, and the lack of colour and sunshine. His idealistic and artistic temperament clung to all that was beautiful in life as expressed in Nature, in art, in form, light, and colour, in thought, in poetry, and in imagination. He deliberately turned his back on the cold facts of science and life, ignored them as much as possible, and shunned the discussion of such subjects as poverty, disease, sorrow, and suffering, with which we were more or less surrounded." On Saturday afternoons Stevenson was "at home" to any that might come. Naturally, many went to see him, but he seemed to get little pleasure out of these visits. Conversation quickly tired him. A persistent "fashionable lady," we are told, seemed to be an especial *bête noire* to him, and once after she left, Stevenson said, "It isn't the great unwashed I dread, but the great washed." From one visitor Stevenson derived great delight. This was Richard Mansfield. To see Mansfield on a table in a corner of the room giving his marvellous impersonation of "Dr. Jekyll and Mr. Hyde," while Stevenson sat by the log fire, which fitfully lit up the room, must have been a striking experience.

British Medical Journal.

SATURDAY, JANUARY 20th, 1912.

THE KING'S EVIL AND THE ROYAL TOUCH.

ONE of the most striking results of the progress of education amongst the masses and the great advance made by medical science during the last hundred years is the total disappearance of a host of popular superstitions. Amongst others, the doctrine of the Divine Right of Kings has "gone with the old world to the grave," and in its train has vanished another attribute of royalty which for centuries was regarded literally as becoming the throned monarch better than his sceptre. The power of healing scrofula, or King's Evil, was believed to be the special prerogative of each successive sovereign, of which nothing—neither his extreme youth, nor a vicious life, nor even the loss of his throne—could deprive him. The story of this wonderful gift has already been told in the BRITISH MEDICAL JOURNAL, in an article which appeared on May 13th, 1899; it is more fully treated by Dr. Raymond Crawfurd in his FitzPatrick Lectures, which have been published in a volume entitled, *The King's Evil*.[1]

According to Dr. Crawfurd, the term "King's Evil" was at first employed very loosely. It was frequently used to denote the "rainbow disease," or jaundice; and probably the milder forms of bubonic plague, so terribly common in Europe during the Middle Ages, came under the same heading. The enlarged glands characteristic of that disease might easily have been mistaken for the scrofulous swellings in the neck which afterwards came to be regarded as the only disease which yielded to the royal touch.

The custom of touching for King's Evil, which was observed by almost every King of England from Edward the Confessor to George I, originated in France in the early part of the eleventh century. Dr. Crawfurd rejects as legendary the well-known story of Clovis being endowed at his coronation with a miraculous gift of healing which he subsequently transmitted to his successors. The first authentic record of healing by touch on the part of a Christian king, he says, is to be found in an old chronicle written shortly after the death of Robert the Pious, King of France, in which that monarch is described as being in the habit of visiting his sick subjects in their own homes and curing them by a touch of his hand and the sign of the Cross, a ceremony invariably accompanied by a small dole of money. Though many of Robert's patients were lepers, there is some ground for believing that he also undertook the treatment of scrofula; and it is obvious that his contemporaries did not consider his healing powers to be hereditary, but an outward and visible sign of the saintliness shown in his life. It is equally clear that these powers were very quickly claimed by his descendants, for in less than a hundred years the custom of touching for disease seems to have been firmly established in France, and was religiously observed by every French King up to the time of the Restoration. In England it was unknown until the last of the old Saxon kings was recalled from exile to ascend the throne of his fathers.

It is a curious fact that though Edward the Confessor cured but one case of scrofula during the whole of his reign in England, his touch had restored health to many during his exile in Normandy; and Dr. Crawfurd is inclined to look upon this as a proof that he had been incited thereunto by the example of the pious King of France, of whose charitable deeds he must often have heard when living at the Norman Court. Strangely enough, none of his Norman successors ever attempted to heal, and the custom consequently fell into abeyance on this side of the Channel until the accession of Henry II. That it was revived by the latter monarch was probably due to motives of policy on the part of a foreign prince anxious to gain the affection and confidence of his new subjects and to connect himself in their minds with the last of their native rulers. No attempt seems to have been made by either of Henry's sons to propitiate their miserable subjects in like manner; but, with these two exceptions, the ceremony of touching for King's Evil was observed by every King of England for nearly 600 years. It only fell into partial disuse during the years immediately following the Black Death, when the plague had both swept away a good half of the number of possible applicants, and greatly increased the fear of infection on the part of the King and his entourage. The dissolution of the monasteries, which turned hundreds of sick poor adrift upon the world, and the miseries brought about by the Civil War, caused an enormous increase in the crowds of sufferers who had recourse to the King, and the numbers reached their greatest height at the Restoration, when patients came even from America in the hope of relief. The power of healing by touch was recognized by not a few doctors as a form of treatment in cases where medicine and the knife had alike proved futile. Even Sir Thomas Browne did not hesitate to send patients abroad to the exiled Charles I. This may have been in the belief that faith healing would work a cure where medicine had failed, as Charcot sent suitable cases to Lourdes; but it is more likely that Browne, who had a considerable grain of superstition in his mental composition, believed in the miraculous efficacy of the royal touch.

The royal touch was also regarded as an unmistakable sign of a legitimate claim to the throne. Charles I, whilst actually a prisoner in the hands of his enemies, continued to touch the sick brought to his door; his son diligently followed his example during his wanderings about the Continent. William III's flat refusal to countenance what he considered a gross superstition was received with dismay by many of his own adherents, and George I's refusal to touch the child of an English gentleman resulted in the father's espousal of the Stuart cause. Whilst the Hanoverian Kings steadily declined to emulate—in this instance, at any rate—the kingly deeds of their predecessors, the exiled Stuarts had carried their rights as well as their wrongs with them over the water. James II, the "Old Pretender," and his son, and Charles Edward, touched, and Cardinal York (regarded by Jacobites as Henry IX), the last of the line, continued to do so to the end of his life. It was quite a usual thing in the eighteenth century for patients to betake themselves to the little Court of St. Germain or Rome, just as a century earlier anxious parents had sent their sickly children to Belgium or Holland for the sake of "the touch of

[1] *The King's Evil.* By Raymond Crawfurd, M.A., M.D.Oxon., F.R.C.P.; Fellow of King's College, London. Published at the Clarendon Press, Oxford. 1911. (Pp. 187. 8s. 6d.)

a vanished hand." Readers of the Verney Papers will remember that when Ralph Verney and his family were living in France, in the middle of the seventeenth century, one of their young relations was sent to them in order to be touched by the French King, there being no King in England at that time. The family correspondence contains several references to the efforts made by the child's nurse to place her in Louis's path when he walked abroad, and the hopes entertained by her friends for her recovery prove how firm was the popular belief in its efficacy. Here we may quote an amusing story related by the Marquis d'Argenson in his *Memoirs*. Under date 1723 there is the following entry:

"At the anointing of the King at Rheims a man from Avesnes who had horrible scrofulous glands went to have himself touched by the King. He was absolutely cured. Hearing this I proceeded to make a formal inquiry, and to collect sworn information as to his previous and subsequent state, the whole being in proper legal form. This done I sent the proofs of this miracle to M. de la Vrillière, Secretary of State for the Province. I thought I should get great praise for my zeal for the royal prerogative. I received a dry letter, in which it was said that nobody doubted of this gift possessed by our King. But I knew very well that all had been read to the King, who, although a child, loved to hear it said that he had wrought this miracle."

One cannot help smiling at the rebuff administered to the courtier, who, as his *Memoirs* show, could scarcely have been a blind believer. But how could such a man have solemnly written down this tale of a well-deserved snub? It is a lesson for those who try to curry favour with princes.

The belief in the "touch" was extended even to the coin which was bestowed on every recipient of the royal bounty; and Dr. Crawfurd relates that in the Shetlands as late as 1838 A.D. a few crowns and half-crowns bearing the effigy of Charles I were still used, in default of the royal touch, as remedies for the Evil; as such they had been handed down from generation to generation. The blood of the Royal Martyr, like that of Louis XVI, was also accredited with miraculous properties; and even a handkerchief used to staunch the bleeding nose of Charles II on his flight from Worcester field was piously preserved by a Royalist lady, who afterwards applied it to scrofulous persons, with what success, however, we are not told. The last case of touching for King's Evil in Great Britain took place in Holyrood Palace, during the rising of 1745, when Prince Charles touched a scrofulous child, with, it is said, the happiest results. In France the ancient belief lingered for another eighty years before it vanished for ever in the wreck of the old French Monarchy. Swept away during the Revolution, like everything else connected with the antique world, it recovered for a brief space of time some of its former glory under Charles X, who, at his coronation in 1824, "revived the whole ancient ceremonial, and touched 121 sick persons, who were presented to him by two famous surgeons, Alibert and Dupuytren." These eminent practitioners would doubtless have been as ready to bear witness to the efficacy of the royal touch, had they been called upon to do so, as Wiseman testified to the cures wrought by the chaste hands of Charles II. Since then no other sovereign has touched for King's Evil. But relics of the old belief still exist in the ancient coins or "Angels," the pieces of money conferred on each applicant, and doubtless considered by many the most important part of the whole ceremony. Some of these coins are still to be found in public and private collections, and several photographs of them are included amongst the illustrations of the present volume, together with a few excellent reproductions of old prints. Dr. Crawfurd has evidently spared no pains in the preparation of his book. He has given a clear and detailed account of the gradual development of the ceremony of healing, from the simple prayer and laying on of hands of early times to the elaborate ritual of latter days, and has shown how from the pious practice of a devoted King it grew into one of the most powerful weapons ever wielded in defence of the divine right.

THE ASYLUMS OFFICERS BILL, 1911.

THE Asylums Officers Bill, in the form in which it emerged from the Select Committee appointed to consider it, is certainly an improvement upon the bill as originally drafted. In its early form the bill provided that the maximum number of hours' employment a week for male attendants and nurses should be sixty, that notice of the hours of duty on the several days of the week should be posted in the asylum, and would have subjected any person employed contrary to provisions of the bill, and also the medical superintendent, on summary conviction, to a fine not exceeding £5. The bill also permitted the visiting committees of asylums to grant special superannuation allowances and gratuities to established officers or servants who, not being entitled to superannuation allowances, should be permanently incapacitated for asylum duties by injury or illness, bodily or mental. The bill further contained one clause designed to take the power of summary dismissal—often delegated to him by the visiting committee—out of the hands of the medical superintendent, and another providing for the aggregation of periods of service, of whatever length, in different asylums for pensionable purposes.

Such a bill, imposing irritating restrictions and penalties upon those responsible for the administration of asylums; offering large opportunities for securing superannuation allowances or gratuities; permitting, if not favouring, a "family post" of officers from one asylum to another; and one, moreover, certain to increase to a serious extent the financial burdens already borne by a highly taxed community, was certain to encounter vigorous resistance.

As to the genesis of the bill, it appears from the evidence tendered to the Select Committee—digests of which will be found in our issues of September 23rd and to-day—that it was practically drafted by the Executive of the National Asylum Workers' Union. This union—organized apparently in a spirit of dissatisfaction with the Asylum Workers' Association—is of recent growth. From his own account it was called into existence by an ex-asylum chaplain, the Rev. H. M. S. Bankart, and those who read his evidence will probably feel no surprise at the termination of his asylum career.

The views laid before the Select Committee were very conflicting. On the one hand, Mr. Bankart stigmatized the conditions of life of workers in asylums as "abominable" and "loathsome"; he described the medical superintendents as so unfair that ordinary British justice did not exist in asylums, and stated that he had a very poor opinion of visiting committees. On the other hand, the more temperately-worded and, we may add, the more accurate statements of all other witnesses held nothing to justify such expressions.

Between these opposite views the Select Committee drew a line about midway. The amended bill is, frankly, a compromise, with the virtues and defects of any compromise. It is, at any rate, a workable measure, and if it be put into effect will probably not entail any serious ill results.

The amended bill establishes *inter alia* a statutory maximum of 140 hours for the day staff and of 120 hours for the night staff in any period of two consecutive weeks. Few, remembering the irksome and often disagreeable nature of the work of asylum attendants and their constant exposure to verbal abuse and bodily assault, without any possibility of reprisal, will quarrel with the limitation of hours agreed upon by the Select Committee. It has, indeed, been surpassed by the London County Council and some other asylums. It is the new principle involved—the intervention of the State between the visiting committees and their employees—that so many find obnoxious.

It has been contended that the statutory fixing of a maximum, beyond which the attendant or nurse will have a right of absolute freedom, will militate against the "nursing spirit" and the "hospitalization of asylums" so sedulously cultivated in recent years. It has also been maintained that where the statutory maximum involves a reduction of the hours of labour the asylum committees will seek to recoup themselves for the increased cost by diminishing the proportion of staff to patients and by curtailing luxuries and comforts to patients. If this be true, it is evident that a bill intended to benefit the staffs of asylums may injure in actual working both patient and nurse. Moreover, it need hardly be pointed out that an unvarying maximum leaves out of consideration the very varying economic conditions which obtain in different districts as regards the quality and price of labour and the financial resources of the employers.

The crux of the whole matter, so far as hours of labour are concerned, is whether there are any solid grounds for dissatisfaction on the part of the subordinate staffs. The evidence on the matter laid before the Select Committee was, as we have said, conflicting; but, after reading the whole evidence, it is impossible to avoid the conclusion that, speaking of asylums as a whole, there are not any such grounds. The asylum attendants themselves do not appear to nurse any grievance under this head, and those who made combined representations scouted as impracticable the sixty hours' maximum proposed in the bill as originally drafted. The members of the Asylum Workers' Association at Bangour Village Asylum stated, in a letter read in evidence by Dr. Shuttleworth: "The sixty hours' limit is not considered reasonable or practicable, and is, therefore, disapproved of. The members are of opinion that it is unnecessary and undesirable that the hours of duty of nurses, male or female, should be fixed by Act of Parliament. They are further of opinion that, even if it were considered proper to have the hours of duty so limited, it would be impossible to fix a time limit which would be fairly applicable to all asylums wherever situated, whatever the size and whatever the class of patient received. . . . Each asylum should be left to fix the hours most suitable to its own conditions."

It was admitted by Dr. Marriott Cooke, speaking on behalf of the English Lunacy Commissioners, that the hours of duty were very variable, and in some cases excessive, and this variability appears to have been regarded by the Select Committee as a defect. This attitude seems, for the reasons given above, to be open to question. Mr. Bankart stated in evidence that at Carmarthen Asylum the attendants' hours were 96 per week, and those of the nurses from 104 to 110; also that at Ballinasloe (Ireland) the men worked 105 hours a week, and that at Lancaster Asylum where he was for some time chaplain, although the hours were 78 to 90 for the men, he had known them do 99½ hours per week, and the women 98 to 108 hours. These are indeed excessive hours, but, unfortunately for his case, the reverend gentleman wobbled so much under cross-examination that he was requested to supply an accurate list. This Mr. Bankart did, and we see from this list, printed as an appendix, that the hours of duty at Carmarthen Asylum are 84 for the men and not 96, and 94½ for the women and not 98 to 108; that at Ballinasloe the hours are 83 and not 105, and at Lancaster 67 for the men and 80 for the women, instead of 78 to 90, and 98 to 108 respectively. We may suitably commend to one of Mr. Bankart's profession the warning of a late distinguished scientist, "to have God's own truth in the measurements." After this Mr. Bankart's diatribes against medical superintendents and visiting committees are robbed of their sting.

Even a Blue Book has points of humour, and, leaving aside the refreshing vigour of Mr. Bankart's evidence, the examination of Dr. Marriott Cooke by Mr. Wardle, M.P., may be mentioned. The matter under discussion was the feasibility of a 60 hours' limit. The practically unanimous opinion of witnesses was that this limit would involve three shifts in 24 hours. Dr. Marriott Cooke had already stated in evidence that the average hours of labour were 84, and that he was in favour of a general reduction to 72. We extract the following:

> 107. If it is possible to do it in 72 hours, is it not possible to do it also in 60 without having three shifts?—No, I do not think it is, because what you can do by making a comparatively small reduction of an hour or two you cannot do in an 8 hours' day.
>
> 108. Let us understand one another. The difference between 84 and 72 is 12?—Yes.
>
> 109. And the difference between 72 and 60 is 12?—Yes.
>
> 110. If it is possible to halve it, why is it not possible to go the whole length, and do the 24 instead of 12?

Mr. Wardle's method is ingenious, and opens up wide possibilities for the economic management of asylums; for, obviously, the difference between 60 and 48 is also 12, and the difference between 48 and 36 also 12, and so by a simple method of arithmetical regression its staffs could be reduced to zero, no shifts would be required, and an immense economy of public funds effected.

Leaving this vital question of labour, the remaining clauses of the amended bill, with the possible exception of that affecting the medical superintendent's power of dismissal, restricting this power by making the dismissal operative only when the consent of the visiting committee is obtained, but enabling the medical superintendent to suspend, appear to be good. As will be seen from our digest, several hardships under the principal Act of 1909 are removed, some legal obscurities cleared up, and even with regard to the power of dismissal, it is to be remembered that under the London County Council's Asylums Committee, in Ireland, and, we believe, in State Asylums, the medical superintendent merely suspends. Notwithstanding its good points, it must be admitted that this bill, if it become law, will probably have effects reaching far beyond the limited class to whom it specifically applies. At

present it affects merely the staffs of county and borough asylums in England and Wales and their equivalents in Scotland and Ireland; but there seems to be every reason for believing that where anything is to be gained thereby, it will be used as a lever to obtain similar advantages by the staffs of registered hospitals, private asylums, prisons, and criminal lunatic asylums, and even those of general hospitals.

THE SCHEME AND THE ACT.

IT seems to be necessary, even at the risk of incurring the charge of "damnable iteration," again to point out that the "National Insurance Act" and the "National Insurance Scheme" are not convertible terms. The Act is a part, no doubt the most fundamental part, of the scheme, but the scheme is completed by certain other documents, of which the most relevant are the estimates contained in the reports of the actuaries consulted by the Treasury, estimates which must be embodied in future Finance Acts, from that of this year to that of some dim future which precedes the millennium. Already, indeed, the coming of the Insurance Scheme has cast its shadows on the Finance Act which Parliament just succeeded in passing before last year ended. That Act contained a subsection allocating a sum of a million and a half sterling, to be made available in such manner as Parliament may determine, for the purposes of the provision of, or making grants in aid to, sanatoriums and other institutions for the treatment of tuberculosis, or such other diseases as the Local Government Boards in England, Scotland, and Ireland, with the approval of the Treasury, may appoint.

In the Budget for this year provision must be made for the State subsidy which will be required if the Insurance Act comes into operation on the specified day. The actuaries, in their most recent report, estimate that this State subsidy must be £1,600,000 in the financial year 1912-13; that next year the State subsidy to be provided by the Finance Act of that year will be a little over four millions, and that the amount will gradually rise until it reaches in round numbers five millions and three-quarters in the financial year 1922-23.

It may be remembered that the actuaries were, last May, instructed by the Treasury to answer certain questions, from A to I, and were instructed to assume that the rate of interest earned on invested funds will be 3 per cent. per annum, that the costs of administration will be the amount produced by the gross rate of contribution of 4s. per member per annum, and that the cost of the medical benefit, including medicines, will be on an average 6s. per member per annum. In framing their answers, the actuaries found that it was necessary to make an estimate of the number of compulsory, voluntary, and deposit contributors, and of the number of women who year by year would become eligible for maternity benefit. Taking the figures thus obtained, the actuaries first of all calculated the total cost per annum of providing all the benefits; the sum thus obtained they call the "total outgo." In order to ascertain the proportion of this total outgo to be paid by the fund formed by the contributions of the insured and the employers, the actuaries first had to make deductions in respect of the fact that the weekly contributions actually to be paid are in excess of the premiums theoretically sufficient to meet the benefits; the deductions are 11.34 per cent. in the case of men and 12.65 per cent. in the case of women. They pointed out that although, if their estimates proved correct, the increased cost of benefits would not be immediately felt, it must be taken into account in discounting the future and in estimating the reserves necessary to be credited to the societies. They then ascertained the annual expenditure for proportion of benefits and cost of administration chargeable against contributions, and the annual amount in respect of the proportion of benefits and cost of administration chargeable against the State. Further, they pointed out that while certain of their estimates were, in the nature of the case, affected by a considerable element of uncertainty, the financial aspects of the scheme were, speaking generally, not materially affected by this uncertainty. That is to say, the amount per head to be set aside for medical benefit was not considered to be among the matters in a state of uncertainty. Subsequently, the actuaries were instructed by the Treasury to revise their estimates in view of the changes embodied in the bill down to the end of the Committee stage in the House of Commons on November 21st; the revision[1] affects only matters of detail, and the new estimates are founded upon the same data, including the 6s. a year for Medical Benefit (which includes treatment, drugs, and appliances).

Last week (pp. 92-93) reference was made to an interesting and instructive correspondence in the *Times* between Sir Clifford Allbutt and Dr. Lauriston Shaw, which at that time had been brought to a point by Sir Clifford Allbutt's question—Is the 6s. a year elastic? Dr. Shaw's reply was to the effect that the Act contained no reference to any special sum allotted to medical benefit, nor any detailed definition of the medical service comprised within that term, and that a scrutiny of the Act would afford indications that "the monetary provision for medical benefit is not only unstated, but is genuinely elastic." Sir Clifford Allbutt demurs to this reply, on the ground that his question was not whether the 6s. a head was expressed in the Act, but whether it was "elastic." "What matters," he continued, "whether in the Act or not, if the actuaries' reports were based upon this unit, so that if this be exceeded the fund and the scheme become insolvent? In this case any subsidy must come from the rates; but is it likely that the local authority will subsidize a non-elective body on which they have but one-fifth of representation? And is there any provision thus to subsidize the medical outlay as distinguished from the administrative expenses of the Insurance Committee?"

The reference is to the seventh subsection of Section 15 of the Act; we read the subsection as applying to a deficit disclosed in the accounts of some particular local Insurance Committee, and not as applying to the general scheme of insurance. As we have endeavoured to indicate in the earlier part of this article, the scheme must be considered as a whole; attention must not be exclusively directed to the words of the Act, but regard must be had also to the method by which the actuaries have proceeded to ascertain the amount of the State subsidy. We submit that the rate to be paid for medical benefit, being one of the data given by the Treasury to the actuaries, is a matter to be settled by the Treasury, acting, no doubt, on the advice of the Insurance Commissioners, and that as at present conceived and understood by the Treasury the scheme is not "elastic" in this important respect. The medical profession will have to point out to the Insurance Commissioners that the datum given to the actuaries by the Treasury in respect to medical

[1] See SUPPLEMENT, p. 62.

benefit is incorrect, because inadequate to achieve one of the fundamental principles of the Act, which is to provide an efficient medical service. The profession in Scotland is acting upon this assumption, which has by implication been accepted by the Scottish Commissioners when they reply that they are giving their most earnest attention to the matter and have appointed a committee to consider it.

A SPECIAL REPRESENTATIVE MEETING.

A SPECIAL meeting of the Council of the British Medical Association was held on January 17th to consider a requisition signed by 564 members of the Association, requesting the Council to convene an extraordinary general meeting for the purpose of discussing as special business a resolution affirming "that in the opinion of this extraordinary general meeting of the members of the British Medical Association, the National Insurance Act does not safeguard the six cardinal points of the policy of the British Medical Association in a manner satisfactory to the members of the aforesaid Association, and we consider that the Council of the British Medical Association has failed in its duties towards its members." In addition to the requisition, the Council had before it the opinion of Mr. Colquhoun Dill, counsel who was consulted when the present constitution was drawn. The opinion of Mr. Colquhoun Dill was to the effect that the special business for which an extraordinary general meeting might be convened was such business as by statute must be dealt with by special resolution, and such business as the regulations and by-laws of the Association require to be dealt with in general meeting; that the resolution set out in the requisition did not fall within the above categories and was therefore not special business, and that therefore the discussion of it in general meeting was prohibited by Article 27. He in consequence advised that, the requisition being out of order, the Council would be acting unconstitutionally if it acted upon it by convening an extraordinary general meeting; and, further, that the resolution, if passed by a meeting so convened, would not be a valid resolution of the Association. He advised also that the provision of Article 22 empowering 100 members to convene a special general meeting did not apply, inasmuch as under the regulations of the Association a general meeting could not be convened at all for the purpose mentioned in the requisition. After the matter had been discussed at some length, the Council decided *nemine contradicente* to inform the members of the Association who had signed the requisition that the subject mentioned in it did not fall within the category of subjects that could be dealt with at an extraordinary general meeting of the Association, that it was therefore not special business, and that discussion of it was prohibited by Article 27, and added that the Council would be acting contrary to the Articles of Association in convening an extraordinary general meeting for the purpose of discussing the subject of the requisition. Mr. Colquhoun Dill went on in his opinion to point out that the subject matter of the proposed resolution was a matter to be dealt with by the Representative Body, and it is therefore proposed to convene a Special Representative Meeting. We understand that the date provisionally suggested for the Special Representative Meeting is Wednesday, February 21st. A report to the Divisions and Representative Body on the National Insurance Act as it affects the medical profession is in preparation, and will be submitted by the State Sickness Insurance Committee to the Council at its ordinary quarterly meeting on January 31st. The report will make reference to the text of the bill, and we would remind members that this text was published in the SUPPLEMENT of January 6th. It seems, therefore, worth while to suggest that that SUPPLEMENT should be preserved for reference.

THE JOINT COMMITTEE AND THE ADVISORY COMMITTEES.

OWING to the importance of the functions which may come to be discharged by the Joint Committee appointed under the National Insurance Act for England, Wales, Scotland, and Ireland, it has been thought proper to print the regulations issued on January 11th by the Commissioners of the Treasury defining the powers of the Joint Committee, although these first regulations have little reference to matters directly interesting the medical profession. In paragraph 17, however, the Joint Committee is empowered to exercise, either alone or jointly with the several bodies of Commissioners, the powers and duties of such bodies under Sections 57, 58, and 78 of the Act, but without prejudice to the exercise and performance by the several bodies of Commissioners of all or any of their powers and duties under the Act. Section 57 applies to the appointment by the Commissioners of officers, inspectors, referees, and servants, and the definitions of their duties by the Insurance Commissioners; Section 58 to the appointment of the Advisory Committee; and Section 78 to the power of the Commissioners, with the consent of the Treasury, to remove difficulties and to issue orders modifying the provisions of the Act so far as may appear necessary or expedient for carrying an order into effect, powers which are to expire on January 1st, 1914. As will be seen by the correspondence between the Acting Medical Secretary, acting under the instructions of the State Sickness Insurance Committee, and the national Insurance Commission for England, published in the SUPPLEMENT, the Commissioners have informed the Association that the preliminary steps necessary to the setting up of the Advisory Committee under Section 58 of the Act are now under the consideration of the Commission, and that before any decision affecting the question of representation of the medical profession upon the Advisory Committee is arrived at the Commissioners will communicate with the British Medical Association. The further information is given that it is understood that the additiona regulations which the Treasury is preparing for issue will include rules for the appointment of an Advisory Committee for each of the National Commissions as well as an Advisory Committee for the Joint Committee. It may probably be assumed that the undertaking now given to the effect that the English Commission, before any decision affecting the question of representation of the medical profession upon the Advisory Committee for England is arrived at, will communicate with the British Medical Association applies also to Wales, Scotland, and Ireland. As is shown by the letter from the Scottish Insurance Commissioners published last week, that body, in response to the sort of round robin which had been sent to it by the Divisions of the Association and other bodies of medical men in Scotland, has already appointed a special committee to consider the whole question of medical benefit and of relative matters with the least possible delay.

THE LATE MR. LABOUCHERE.

THE death of Mr. Labouchere deserves mention here, as the founder of *Truth* did much to expose quackery. That his knowledge of the aims of scientific medicine and his sympathy with the profession was sometimes imperfect, may be freely admitted. Yet it cannot be denied that he did an immense amount of good by exposing frauds, and warning a public, always too willing to be deceived, against putting its trust in impostors. This kind of work, done in its own way by a paper like *Truth*, was likely to have more effect than if such attacks on pretenders preying on the credulity or the last hopes of those stricken by disease had

appeared in a medical journal. They reached a larger number of readers, and there could not be any suspicion of professional jealousy about them. While the credit of the work must be in large measure given to the late Mr. Horace Voules, who had an extraordinary instinct for the "smelling out" of impostors, Mr. Labouchere took all the responsibility—by no means a light one—upon his own shoulders. If he did not actually wield the lance in tilting against the giants of fraud and imposture, he provided the weapons and bore all the brunt of the fray. This particular form of knight errantry is attended with many dangers in a country where the press has to contend with a law of libel so full of pitfalls as ours. Of that law Mr. Labouchere used to say he knew more than any man living, and it is certain that his experience of it was, like Sam Weller's acquaintance with London, "extensive and peculiar." Whether it was a bogus charity, a hospital whose finances were badly managed or whose sanitary condition was unsound, an inebriate home the inmates of which were ill treated, or worthless cures for all sorts of diseases from cancer to corns, *Truth*—on information received, as the police say—proceeded with no faltering hand to rend the veil which hid the secrets of the prison-house, and to place in the pillory those guilty of fraud, cruelty, and maladministration. *Truth* was recognized as a terror to malefactors, and Mr. Labouchere might justly have been proud, like Pope, to see men who feared not God afraid of him. That mistakes should sometimes be made was inevitable, but on the whole the work was well done. His outspoken denunciations of wrong, and his reputed wealth made him the target of numberless litigants. He was successful in most of the actions brought against him; but he spent vast sums in defending them. To a poorer man his victories would have been of the Pyrrhic kind, for he could scarcely ever recover costs. Mr. Labouchere's journalistic career illustrates in a striking manner the danger of exposing even gross forms of quackery as the law of libel now stands. The average juryman, susceptible as he is to appeals to all the most cherished prejudices of the freeborn Englishman, who, as Dr. Gregory said, likes to go to the d——l in his own way, does not always succeed in forming a sound judgement on issues for the decision of which considerable technical knowledge may be required. The late Lord Russell of Killowen did a good deal to stamp out speculative libel actions against newspapers, and had his career not been cut short his influence might have been strong enough to prevent the abuse of the courts for such purposes, which has since grown into a crying evil. A movement is now on foot for the protection of newspapers which, in the discharge of the duty they owe to the public, honestly and without malice expose fraud and imposture. It is, indeed, high time that the shackles which fetter the press in its fight against those who prey on human folly should be struck off.

BONESETTERS.

IN the JOURNAL of January 13th we gave a summary of a debate on bonesetting which took place at Guy's Hospital. It will, perhaps, be interesting to some of our readers to have the views of so experienced a surgeon as Professor Howard Marsh on the same subject. In an address delivered before the Abernethian Society, and published in the *St. Bartholomew's Hospital Journal* for December, he says that bonesetters cure many cases. They most astonish the public when they break down adhesions following fracture or other injury, or "rheumatism," and which, though they are slight, cause pain when the part in which they are present is moved. They put in semilunar cartilages or slipped tendons, or they move joints which have been kept too long at rest. They rupture small ganglia about the wrist, and say they have put a little bone in, or they "put in hysterical joints." If the patient complains of pain or stiffness in the spine, the bonesetter finds that one of the "buttons" of the back is out, and at once forcibly puts it in. The button which is "out" is identified either by its prominence or because it is tender on firm pressure. When it is borne in mind, says Mr. Marsh, that the bonesetter's method is practically limited to forcible movement, it is easy to see that in regard to results their cases fall into two groups: those which forcible movement can cure, and those in which it is either useless or mischievous. The former are the bonesetter's successes; the latter make up his failures and his disasters. The late Mr. Hutton, while he had many notable successes had few disasters, for, though he did not know what the nature of many cases were, he could see that there were some he had better not touch. Mr. Howard Marsh lays stress on the point that there are many cases of which the cure lies in movement. Any case of this kind a bonesetter will probably cure. Doctors have not realized the value of this, and are afraid of doing harm. People are even sometimes cured by an accidental wrench which ruptures adhesions about the shoulders or ankle. The little bones have become the exclusive province of the bonesetter, and they are always at his call, like Roderick Dhu's Clan Alpin warriors, ever ready at a moment's notice wherever and whenever they are wanted. The bonesetter can tell where the bone is "out" by finding a tender spot. This spot, to the surgical mind, means a bruised semilunar cartilage or a painful adhesion. The bonesetter detects these little bones in the most unlikely places, as under the last inch of the tendo Achillis or just below the anterior iliac spine. The bonesetter knows that a bone goes in by the snap. These snaps, however, are not due to the concussion of two joint surfaces as they are forced into contact, but, on the contrary, to the separation of surfaces which have been stuck together by inspissated synovia. Many people can make their fingers crack by pulling at them till the joint surfaces suddenly separate. In severe cases there may be four or five bones "out." The bonesetter puts them all in at one time. If a cure does not result when he puts the first little bone "in," he puts in another, and so on till the cure is finished. If no cure ensues, the blame is laid to the door of the surgeon, who by his wrong treatment has made the result impossible. Mr. Howard Marsh does not take the view that all bonesetters are dishonest quacks. He thinks that on the average they are about as honest or dishonest as other people. They mostly believe what they say, and this is not to be wondered at considering that they sometimes work cures which astonish not only their patients, but themselves. Of course, they sometimes fail, but then surgeons, they say, never succeed, and, moreover, make the cases incurable. Bonesetting and surgery had a common origin, the difference being that while surgery has progressed the creed of the bonsetter is what it was centuries ago. Mr. Hutton used to say, "Don't bother me with anatomy. I can cure you. What more do you want?" Mr. Marsh says that cases that have come under his notice confirm the statement that bonesetters make no diagnosis and have no knowledge of the real nature of the cases with which they deal. "In all the following instances joints were—or were to be in a day or two—put in: a tuberculous hip, a hip which had been already excised, a large sarcoma of the lower end of the thigh bone, a bursa over the tuber ischii, a slight lateral curvature—said to be a case in which the pelvis had opened and both the hips were out—an elbow and an ankle, both healthy joints." The latter were sent as test cases. Mr. Marsh goes on to say that faith plays a large part in bonesetting, as might be expected from the ignorance of people. If bonesetters could only keep to adhesions, which careless surgeons may have overlooked, and leave tuberculous

joints and sarcomas alone, they would, in Professor Marsh's opinion, be useful. But there's the rub; the confidence begotten of ignorance too often leads them to "rush in," where knowledge makes a surgeon, it may be, too cautious. The result is disaster. One success, however, outweighs many failures. This is the strength of the bonesetter's position.

THE USE OF EXAMINATIONS.

MACAULAY created the Competition Wallah, and since that time the ingenuous youth of these realms have become more and more closely formed mentally on the model of the Mandarin. Now grave doubts are being expressed in various quarters as to the utility of examinations and the results of the competitive system. Thoughtful persons who watch the educational signs of the times are asking the question, Is the rising generation over-examined? With this is connected the question of cramming, a process of intellectual over-feeding which every one condemns, but to which most students find it necessary to subject themselves to a greater or less extent. Some years ago Sir William Ramsay denounced the system prevalent in this country, and boldly maintained the thesis that a man's teachers are the best judges of his capacity, drawing the practical conclusion that examinations in the formal sense are not only unnecessary but futile. Sir John Byers has recently come forward on the other side. After distributing the prizes at Lurgan College on December 21st, he said the best type of education was that which prepared a boy to do his work in whatever position he might be placed, while at the same time, by the equable training of his faculties, it endeavoured to provide him with the culture found in the community of men and women united by sympathy of thought and ideals in the dignity and loftiest aims of life. In order to gauge the knowledge and mental development of students as well as to estimate the efficiency of schools and colleges some method was required; and, speaking from his own experience as a teacher and examiner, Sir John Byers held that examinations were an indispensable element in coming to a decision on such questions. He admitted that examiners were liable to errors, but he maintained that such mistakes were largely the fault not of the system, but of the way in which it was carried out. In the hands of examiners who had not sufficient experience of teaching, who failed to recognize the difficulties of the teachers and the frequent inexperience of candidates, who tried to find out not what a student knew but what he did not know, no doubt examinations were sometimes at fault. But, he asked, what could be substituted for them? Were students to be allowed to practise medicine without any test of their knowledge and fitness? Were examinations for admission to the public services to be abolished, and were we to return to the days of nomination by patronage? Were young men to be appointed to positions not on the ground of their own knowledge and capabilities, but because of their social position, their religion, or their politics? We agree with Sir John Byers that there must be tests of some kind if incapacity is to be weeded out and jobbery is to be avoided. We think, however, that there is something to be said in favour of a certain measure of selection, such as has been established for admission to Osborne. The Competition Wallah has not been uniformly a success, and the glib Babu who has a distinct talent for passing examinations has often proved unfit for responsible positions. Sir John Byers maintained that experience shows that success in examinations is in the vast majority of cases followed by success in after-life, because the same qualities that are needed for success at examinations—industry, resourcefulness, concentration, good health, and the power of rapidly turning from one subject to another—are those found most helpful in any kind of work. If by success in examinations Sir John Byers means the highest academical distinctions, we think this statement as a general proposition is open to question. Many of our most distinguished legislators, lawyers, divines, and doctors have simply "satisfied the examiners." It may be said that with the high standards of the present day this is enough, but we do not think it is what Sir John Byers means. Examination is a very imperfect test of knowledge and none at all of character. What has become of all the Senior Wranglers? is a question that has often been asked. We believe the fate of the great majority of them was an obscure country parsonage, or a schoolmastership, when the end was not premature breakdown. We have heard that many lads from a public school which a few years ago was noted as a forcing ground for scholarships, were mentally exhausted before they had completed their university course. The ideal method of testing knowledge has yet to be found. The present system of multiplied tests and the fissiparous tendency shown in splitting up examinations into groups, and even single subjects, is in itself a proof that a reform in the direction of simplification is needed.

SOME NOSTRUMS FOR ALCOHOLISM.

WE publish elsewhere some particulars of the claims made for three proprietary articles advertised for the cure of the drink habit, and the results obtained on analysing the preparations in question. The claims advanced are naturally a good deal alike in the three cases, but the drugs used are almost entirely different. Each of the preparations is supplied in two forms, the one to be taken voluntarily by patients desirous of being cured, and the other to be administered without the patient's knowledge; obviously, if a cure can be effected in the latter way, there can be less hesitation is ascribing the result to the drugs than when the patient has exercised his will in the same direction, and the preparation for secret administration was therefore selected for analysis in each case. The first of the articles examined was found to consist merely of powdered cinchona bark, diluted with milk-sugar and magnesium carbonate; of this it is asserted that "it does not contain any drugs, poison, or minerals of any description," although cinchona is generally regarded as a drug and magnesia as a mineral; since the dose of cinchona which is given is only 6 grains a day, containing about $\frac{1}{5}$ grain of alkaloids, it is scarcely to be expected that any great result will be obtained from the administration of this preparation. In the next article described, which appears to be of American origin, tartar emetic is the only active ingredient found in the powders and tablets. What is evidently aimed at is to produce nausea or vomiting, and to lead the patient to associate these symptoms with the consumption of alcoholic liquors. Much is said about the "treatment" being capable of curing any case in three days, and it purports to be made and sold by an individual who was cured by it in three days, after having been a heavy drinker for sixteen years. If the statements are carefully read, it does not appear to be definitely asserted that the "B treatment," that is, the remedy which is administered secretly, will effect a cure in that time, although the impression might easily be received that three days will suffice, "between Friday night and Monday night, or any other 72 hours," whether the patient is treated with or without his own knowledge and co-operation: but when the money has been paid and the medicine is sent, the purchaser is urged to have patience and not to be discouraged if months should be necessary for the accomplishment of a cure. In the advertisements, letters and circulars, the first person singular is largely used, and they are ostensibly issued by the individual by whose name the preparation is called, and who is said to have been cured by it; but it appears that the vendor is really a limited company, which deals

also in a large number of other nostrums having nothing to do with alcoholism, such as "anti-deafness tablets," "asthma tablets," "rheumatism remedy," etc. The third article reported on is made in America, but it is advertised in this country. In this case strychnine in small doses and caffeine are the principal medicaments, tartar emetic being also employed, in the hope, no doubt, of causing a feeling of nausea to be associated with alcoholic drink. The lowest price charged for any of the three preparations is a sovereign, while each of the other two is priced at two guineas; in every case the prime cost of the ingredients is shown to be so small as to be practically negligible.

TEMPERAMENT IN SPORT.

DR. CLAYE SHAW appears in a somewhat unexpected place in the December number of *Bailey's Magazine of Sports and Pastimes*, to which he contributes an article on temperament in sport, which has a larger range of application than the title might suggest. He says circumstances are always occurring in which governing bodies, selection committees, and in general people responsible for the success of a venture are faced with the necessity of getting the best man for the job and of seeing that he is adequately supported. Successful leadership, it is pointed out, does not always connote perfection in the accomplishment of mechanical detail, although it implies an accurate knowledge of what is wanted at the moment and a balanced judgement of the way by which it is to be attained. Common experience teaches that there are people who are born with and who develop special aptitude, born leaders, born students, born athletes, and, it may be added, born drudges, who are most useful in their way. Plenty react to the spur of a leader of genius who are useless if called upon to apply such a stimulus to others. This is illustrated very notably in the case of Napoleon's marshals, all of whom were men of tried experience in war, and with aptitudes developed in various directions in that field. Most of them, however, did not show to their best advantage when in independent command. It is not an easy thing to decide as to the qualities which fit a man for leadership. He must be tried, and too many thus tried would come under the verdict of Tacitus: *Capax imperii nisi imperasset*. Dr. Shaw goes on to say that the foremost man of a revolution may be the right person to lead his enthusiastic followers to victory, but he may not be the one to keep them together afterwards. Here we may remark that the greatest revolution in the history of mankind was made without a leader. The mediocrity of the men who brought about the French Revolution and led the people during that period of storm till Napoleon ended it with his whiff of grapeshot has often been the subject of comment. Robespierre was a pedantic mediocrity who ruled men by high-sounding phrases taken from Rousseau. He is an extraordinary instance of how a man of small intellect can impose himself by a glibness of tongue and a talent for intrigue disguised under the aspect of an austere integrity. Speaking of the born leader of men, Dr. Shaw says he knows how to wait, and how to bring his individuality to bear at the right moment; he knows, too, when to retire. "Such an adventitious interloper in the tame progress of affairs may be a true patriot, or he may be merely a time server. But he has his *métier*, and in his way he is useful, and even necessary. Will So-and-so keep his head at the critical moment when wickets are falling fast and it is necessary to stop the rot? Who is the man to send in whose calm nerve shall turn the prospect of defeat into victory? The answer is to be found in the word 'temperament,' and we want different temperaments for different pursuits and crises." It is not always advisable, in Dr. Shaw's opinion, to make a champion eleven out of the men with the highest averages in their respective departments. It must be stiffened with a few experienced veterans, who are not upset by the jeers of the crowd or the strain of the moment, and who may be trusted to meet the exigencies of any situation that may arise. Some diseases tend to produce specific changes of temperament, and the importance of recognizing this is obvious when the capabilities of men for filling a particular position have to be appraised. There is one subtle disease not recognized in the nosologies, and not mentioned by Dr. Shaw; it is popularly known as "swelled head." This has brought many an excellent leader to grief, and has ruined many a good cause. The captain who always puts himself on to bowl, or to bat, for instance, or the member of any team who, like the smith in the *Fair Maid of Perth*, plays chiefly or only for his own hand, is pretty sure sooner or later to cause disaster to his side. For practical purposes Dr. Shaw divides the temperaments of individuals into two classes: the nervous and the phlegmatic. "In the former must be noted excitability, restlessness, a tendency to be too impressed by surrounding conditions which interfere with the direct purpose on hand, a large expenditure of energy with consequent rapid exhaustion, and an irascible, timid, or impulsive disposition; in the latter a calm calculation of the future, an agreeable reception of the present surroundings, and an imperturbability in a crisis." These qualities are born with the man, and are but little liable to be changed by any effort. They are not synonymous with character, which is largely made by one's own efforts, and which is really the product of the action of the physical and social environment on the innate temperament. This distinction is vital to the successful application of leadership. "The apparent character of a man is apt to be deceptive. He may have learnt so to attune his private temperament to his environment as to obtain a character of a certain quality or force, sufficient for ordinary conditions, but under stress the expectations formed of him are not realized; to our dismay he fails when he ought to have succeeded, because his character was but a thin veneer over a basic temperament of nervousness or a timid disposition." Above all things a man must learn to play the game, a phrase, says Dr. Shaw, which has more in it than is generally understood. It is not merely playing fairly; it is learning to concentrate one's attention on what is happening, and to push into the background an unfriendly environment. Crowds are inconsiderate and impulsive; so are many masters, and the man of nervous temperament is liable to be flustered by his surroundings and to think too much of possible failure to rise to his reputation. Whether Wellington did or did not say that Waterloo was won in the playing fields of Eton, there can be no doubt that the qualities which go to the making of a leader in sports are the same as those which help to make a man a leader in war or in politics.

THE INTERNATIONAL OPIUM CONFERENCE AT THE HAGUE.

THE International Opium Conference reassembled after the recess on January 9th. Prior to the meeting of the full Conference the Committee of Redaction had been busy for some days putting into final shape the resolutions already carried by the Conference and completing the form of the International Convention and Protocols which will embody the labours of the Conference. This committee consisted originally of M. Guesde (France) as chairman, His Excellency M. Savinski (Russia), Sir William Collins (Great Britain), Herr Dolbrück (Germany), and M. Van Deventer (Holland), but owing to the inability of M. Guesde to return to The Hague, his place was taken by M. Brenier. The chief results of the Conference prior to the Christmas recess have been published. Each signatory

Power undertakes to control the production and distribution of raw opium, prepared opium, and medicinal opium, as well as morphine, cocaine, and kindred preparations. For such purposes limits are to be placed upon import and export, while manufacture and sale are vested in the hands of duly authorized persons. Ten articles are devoted to the means to be taken to restrict morphine and cocaine to proper uses. These articles, according to our contemporary, establish a new international "moral principle of mutual responsibility and mutual protection in a matter vitally affecting the health and order of the civilized world." We understand that it is not the case, as stated in the *Times*, that certain articles dealing specially with the case of China will be placed in a separate Convention; on the contrary, these, with the rest, will appear in the General Convention. We are informed that the first British plenipotentiary, Sir Cecil Clementi Smith, has not returned to The Hague since the recess, and that the greater part of the speaking on behalf of Great Britain has fallen to the lot of Sir William Collins. From various sources we gather that trade interests are not failing to exert such pressure as is possible in regard to the final form of the Convention. The manufacture and sale of alkaloids like morphine and cocaine is a highly profitable industry limited to a few firms, chiefly in Great Britain, Germany, and the United States, though the latter country consumes nearly all it produces. There can be little doubt, having regard to the amount of the output of these alkaloids, that their use cannot be even approximately limited to medicinal purposes; their illicit employment must be considerable. It is idle to regard the morphinist as a mere object of compassion. Those acquainted with the literature of the subject must be aware that neurasthenics who have resorted to the use of morphine and cocaine readily sink into vicious and criminal ways, and by their plausibility and insidiousness constitute themselves dangerous social pests. The difficulties inherent in any attempts at limitation to legitimate use of these potent and valuable drugs are considerable. The facility for obtaining them and for smuggling them is great, and we shall await with interest the publication of the practical measures of an international nature which the Conference is engaged in codifying.

PAYMENT UNDER THE INSURANCE ACT.

ON turning to page 59 of the SUPPLEMENT to this issue it will be found that the Acting Medical Secretary of the Association has, by instruction of the State Sickness Insurance Committee, dispatched to the Honorary Secretaries of Divisions throughout the country a letter asking them to try to obtain from members resident in their locality figures indicative of the number of attendances yearly required by any given group of persons. Precise figures are requested, and the form in which the returns might be made is suggested. It is hoped that any members who can do so will assist by furnishing any figures in their possession. As we had occasion to point out last week, no figures at present exist from which a conclusive answer can be derived to the question of how much work any given number of insured persons will entail on those who make themselves responsible for their treatment. It is a problem involving two factors—first, the figure which is now being sought; and secondly, an estimate of the number of patients to whom a medical man can give a full meed of attention in the course of a day if he is doing his work single-handed, not in a hospital nor always in his own home, and subjected to the need of getting in and out of his patients' homes, and discussing perhaps their condition with their friends. It is of great importance that a solution of this problem should be forthcoming rapidly, and that it should be based upon a number of cases large enough to make it at once convincing. A considerable number of lay papers are busily engaged in prejudging the question. Their object is to make out that 6s. a head is an ample amount to set aside for medical benefit, including drugs and appliances, and their statements, when based on any figures at all, appear to be founded on figures derived from the isolated experience of one or more medical men. No single man's experience can afford a satisfactory solution of the problem, though this fact is not always appreciated. As an example, the author of a pamphlet to which we made allusion last week has sent us the following comment on our statement that no conclusive answer to the problem could yet be given. "It must be true," he says, "that no 'conclusive answer' can be given to such a question until the Act has been in operation for some years, but the pamphlet mentioned does in a measure answer the question. On page 35 it says: 'From provident dispensary experience, previously quoted, we know that each member on an average requires the doctor's attention four to five times a year (4.77).' This means that if a doctor had 1,000 members under his care, he would have about 4,770 interviews with them during the year, or a daily average of thirteen—say about seven visits and six consultations a day. This calculation is based on nearly half a million visits and consultations spread over thirty years. The work of this provident dispensary was not on all-fours with what it would be under National Insurance, because in the former 77 per cent. of the members were women and children (p. 22), whereas under the Act the majority of insured persons will be men, and should, therefore, give the doctor less work. On the other hand, the members of the dispensary lived within a radius of one mile of the institution in a thickly populated area, so that the domiciliary visits entailed a minimum waste of time in travelling, whereas the insured persons will probably be more scattered, so that it will take more time to see them at home. But the record of work mentioned is probably a fair basis on which to estimate the work that will be required in the shape of ordinary consultations and visits under the Insurance Act." The reasons why acceptance of our correspondent's view is impossible to us are perhaps sufficiently indicated in the opening sentences of this note; his figure 4.77 had, as a matter of fact, been duly noted, but could not be accepted as conclusive if only because it differed materially from the corresponding figures derived from calculations based on the other communications mentioned in the same article.

THE University College Hospital Medical School proposes to entertain Sir Thomas Barlow and Mr. Rickman Godlee at a complimentary dinner in recognition of the distinction conferred on them by their election to the Presidency of the Royal College of Physicians of London and the Royal College of Surgeons of England respectively. The dinner will take place on Thursday, February 8th, at the Hotel Cecil, Strand. The chair will be taken by Sir John Tweedy at 7.30. Tickets, price half a guinea, can be obtained from the Dean or Secretary at the Medical School, University Street, Gower Street, W.C.

DR. CHARLES ALFRED LEE, of Hull, who died on January 13th, has, it is stated, left a sum of £150,000 in trust for the erection and maintenance of completely equipped almshouses on an open space available in the town. The beneficiaries are to be chosen among persons who have been resident in Hull for at least ten years, preference being given to those who at one time have been in good circumstances; they may be married or single. The arrangements include the provision of medical attendance and a weekly allowance for food and clothing. Dr. Lee, who became M.R.C.S. in 1848 and M.D.Aberd. in 1859, was in his eighty-seventh year and unmarried; he was himself a native of Hull, and had been in practice there for some sixty years. He was medical officer of a cholera ship stationed in the Humber at the commencement of his career, but afterwards held no appointments. The greater part of his large fortune was acquired by inheritance. He was a member of the managing committee of Hull Royal Infirmary, and some years ago established some homes for children.

Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

THE BICENTENARY OF TRINITY COLLEGE MEDICAL SCHOOL.

A CIRCULAR letter has been sent to the medical graduates of Dublin University inviting them to attend a general meeting of medical graduates to be held in the medical school on Monday, January 22nd, at 4.30 p.m., to consider what part the medical graduates should take in the Bicentenary Festival of the medical school to be held in the first week of next July.

EMIGRATION FROM IRELAND.

The Registrar-General's returns of the number of emigrants who left Irish ports during the year ended December 31st, 1911, show a decrease of 1,884, as compared with 1910. The figures for the two years are: 1910, 32,457; and 1911, 30,573. The decrease was not confined to any particular part of the country, but was apparent in all four provinces. Of the whole number, 27,488 went to the United States and Canada, and of the 19,897 steerage passengers to the United States, 6,396 had their passages paid for in America. The average annual number of Irish emigrants for the ten years 1900 to 1909 was 35,886. With the exception of the years 1908 and 1909, there were fewer emigrants from Ireland last year than in any year since 1890, when they numbered 61,313.

SOUTH DUBLIN UNION.

At the weekly meeting of the guardians of the South Dublin Union on January 10th Dr. W. R. Hooper was elected medical officer for Rathmines (No. 2) Dispensary District, and the Chairman paid a tribute to the manner in which he had discharged his duties while on the resident medical staff of the union. Dr. M. J. Kennedy was elected medical officer for the Clondalkin and Palmerston Dispensary.

OVERCROWDED ASYLUM.

At a meeting of the Committee of Management of the Ballinasloe District Asylum the report of Dr. W. R. Dawson, Inspector of Lunatics, was read, in which he said that on the occasion of his last visit the numbers resident in the asylum were 1,415 (864 men and 551 women), and since then the number had been increased by 23, making the institution, therefore, more grossly overcrowded than ever, especially on the male side; there were 221 patients more than could be properly accommodated, and the discrepancy in the day-room accommodation was much greater even than this. Some of the results of this overcrowding were only too evident in the large number of accidents and the prevalence of zymotic diseases; and there could be no doubt that the bad effect of the present state of affairs seriously jeopardized the chances of recovery of the patients. No alterations could provide enough space, and it was absolutely necessary to erect additional buildings. A block on inexpensive lines, to accommodate from 250 to 300 male patients of the working class, could be suitably erected on the farm, and would at once put an end to the present utterly unsatisfactory state of affairs.

FLOODS AND SICKNESS.

According to reports from Athlone the outlook is now worse than at any time since the floods commenced, two months ago, and as a result a great deal of distress prevails. As was feared, much sickness has been occasioned by the prolonged and abnormal flooding. The authorities have directed that all the schools which were closed for the Christmas holidays shall remain closed for the present. The local medical officers are kept out practically day and night in consequence of the amount of sickness.

Owing to an outbreak of fever in Listowel the county court judge—on the application of the members of the legal profession and on the evidence of Dr. Dillon, to the effect that an epidemic existed—adjourned the further business of the Quarter Sessions for a month as a precautionary measure against the spread of the disease. Sir Acheson MacCullagh, Medical Inspector of the Local Government Board, is at present in Listowel conferring with the local authorities.

"DIRTY DUBLIN."

At the meeting of the council of the Dublin Sanitary Association held last week the dirty state of the roadways and footpaths was under consideration, and the following resolution was passed:

> That, in the opinion of the council of this association, the existing filthy state of the roadways and footpaths in the streets of the city and in some of the suburbs is prejudicial to the public health, and calls for prompt measures on the part of the authorities. The council considers that the provisions of 47 Geo. III, chapter 109, and 5 Vict., sec. 2, chapter 24, should be strictly enforced, and that, in addition, the Cleansing Department should take steps to have the surface of the streets in the city more frequently swept and cleansed.

The provision of the more recent Act is that the footway and water channel of houses in Dublin shall be kept clean at all times, under a penalty of £2.

Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

KING EDWARD MEMORIAL: CONFERENCE IN GLASGOW.

A CONFERENCE of local authorities in Scotland and of associations interested in the treatment of tuberculosis, convened by the Lord Provost of Glasgow on behalf of the Corporation to discuss the question of a memorial to the late King Edward, having for its object the alleviation of suffering, was held in Glasgow on January 12th. Delegates were present from seventeen county councils, thirty-six town councils, and from several parish councils, associations, and the Royal Faculty of Physicians and Surgeons, Glasgow. The Lord Provost presided. It was intimated that several of the burghs and counties invited had not seen their way to appoint representatives, but that they had expressed themselves in sympathy with the movement. Some had already taken action regarding memorials to King Edward. The first resolution, proposed by Sir Thomas Glen Coats, Bart., to the effect that steps be taken to raise a fund to be called "The King Edward Memorial Fund," was adopted.

The second resolution, proposed by Councillor Baxter (Greenock) and supported by Dr. James A. Adams, the President of the Royal Faculty of Physicians and Surgeons, was in the following terms: "That this meeting is of opinion that the memorial fund should be applied, *inter alia*, to the establishment and maintenance of an institute to be called 'The King Edward Memorial Institute of Preventive Medicine' or some similar name, the institute to be dedicated primarily to research and the dissemination of knowledge in relation to tuberculosis and to be available to the whole of Scotland."

Councillor Dr. James Erskine maintained that it was unnecessary to have a memorial building when the Royal and Western Infirmaries might be used for research. The fund might be applied to the establishment of scholarships for the study of preventive medicine and original research.

Dr. Yellowlees also doubted whether such an institute was an essential part of the crusade against consumption, and pointed out that there was already in London the Lister Institute, where the ablest men were working at preventive work. Eventually the resolution was adopted, the Chairman stating that Dr. Erskine's suggestion could be considered by the executive later.

Bailie Stewart, Convener of Glasgow Corporation Health Committee, moved the appointment of an executive committee to carry out the resolutions of the conference, and also to consider the question of the erection and maintenance of consumptive sanatoriums, and report to a future conference. The intention was, he said, to confer with the various local authorities, and to link up all their efforts in one combined effort. The Insurance Act directly raised the subject of sanatoriums. The resolution was adopted and a larger representative committee was appointed, with Lord Provost Stevenson as convener, and Mr. John Lindsay (Glasgow Town Clerk) deputed as clerk.

CONGESTED AREAS: A PUBLIC HEALTH PROBLEM.

A report has been prepared by Dr. A. K. Chalmers, M.O.H., on insanitary and obstructive buildings in congested areas in the city of Glasgow. It contains a com-

prehensive account of the sanitary history of the present wards of Glasgow and of their respective death-rates. In eight wards the death-rate is always higher than the city death-rate, and in eight more the rate is occasionally higher. In ten wards the death-rate is always below the average. Attention is directed to certain internal defects in house construction, such as defective lighting and ventilation of common lobbies, the existence of concealed beds, back-to-back houses, and want of through ventilation in small houses. A recent survey showed 3,079 apartments without the space required by law. The principal defect, however, in all the areas is overbuilding, and the blocking of what should be hollow squares. The provision of open spaces on the margin of such congested areas fails to accomplish all that is required. To overcome this difficulty of divided ownership the Housing of the Working Classes Act of 1890 made two separate provisions, but their practical application to the task of estimating appreciation in the value of the remaining buildings had not hitherto been attempted; if reasonable progress is to be made in reforming the overbuilt areas of the city there is need for a comprehensive method of dealing with them. There is much to be said in favour of the view that the Corporation should set aside a sum annually for reforming its worst districts. In any case, he remarks, we cannot remain satisfied with what has already been accomplished.

Glasgow School Board and Rickety Children.

The School Board of Glasgow at its meeting on December 28th, 1911, received a report containing the proposals for the prevention of rickets, a disease which from its prevalence in the city has become known in the East of Scotland as "Glasgow legs." It is stated in the report that, of 1,080 children attending the physically defective classes under the Board, 58 to 60 per cent. were on the list directly as a result of rickets. Among the remaining 40 per cent. a number presented secondary results of the same disease. It was pointed out that whereas the education of the ordinary child costs £4 2s. 6d., the cost of the physically defective child was £10 11s. 2d., the difference being due to the conveyance of the children to school, the attendance of nurses, and the provision of meals; and that mistakes in the feeding of infants were responsible. The motion in the minutes of the Committee on Special Schools was:

> That whereas rickets is a disease most painfully prevalent in Glasgow, and a cause of great expense to the community; and whereas it is at the same time, according to the highest authorities, easily preventable, being due chiefly, if not entirely, to gross errors in the feeding of infants, this Committee recommend the Board:
>
> 1. To require that in classes for women and girls, such as cookery classes, supplementary classes, and continuation classes on health and hygiene, special reference be made, in a way to be approved by the Board's chief medical officer, to the cause of rickets, and the means by which its occurrence may be prevented.
>
> 2. To require that examining medical officers press the facts on the attention of all mothers whose children may be found to be suffering from rickets, and
>
> 3. That every assistance within the power of the Board be given to the medical officers of the Corporation in their efforts to stamp out this disease.

These recommendations were approved by the Board after discussion. Two additions were proposed—namely:

> 4. Diet being part of the treatment in our defective schools, this Board requires that all children in attendance at these schools shall take the food provided, and that parents pay for the food when circumstances permit.
>
> 5. That as rickets is produced not only by improper feeding, but by unhealthy, overcrowded, badly ventilated, and dirty homes, this Board make an appeal to the Health Department of Glasgow Corporation to at once take action to tackle this disease at its source.

No. 4 was ruled incompetent, owing to want of legal power, and No. 5 was negatived on a division by 14 votes to 8.

Housing and Health in Glasgow.

The Corporation of Glasgow has adopted the following proposals made by its Health Committee:

1. That the hospital buildings about to be erected on Robroyston estate should be made available for the treatment of consumptives.

2. To confer with the school boards and the parish councils in the city regarding proposed country homes, with which might be associated open-air schools for pre-tuberculous children and home treatment of consumptives where assistance, financial and otherwise, is required.

3. To recommend that reports on insanitary and obstructive buildings and the provisions of the existing law relative thereto be remitted to the Special Committee on the Housing of the Working Classes Acts, 1890 to 1909, for their consideration and attention.

In moving the adoption of these recommendations, the Convener of the Health Committee said that in them was laid the foundation stone of a great constructive policy in dealing with the crusade against consumption. In the discussion which followed special attention was directed to a paragraph in the recent report of the medical officer of health—namely:

> It is scarcely necessary to repeat that the first great step—the basis indeed of the whole movement—lies in the adoption of a policy, continuously in operation, of thinning out overbuilt residential areas, and of making deliberate effort to improve the ventilation and lighting of houses when these are defective. Without this I doubt if any permanent benefit is to be expected from any or all of the other methods taken together. For this work the local authority alone is responsible.

In connexion with the work of clearing slum tenements a sheriff's judgement was recently given against the Corporation. An appeal to the Court of Session resulted in favour of the Corporation on two main points, and as this decision was intimated on the morning of the Council meeting much satisfaction was expressed. The special committee on the Housing of the Working Classes Acts, of which Dr. E. McConnell is convener, will now be untrammelled in its beneficent work.

The Rainfall in Scotland for 1911.

The year 1911 will rank as a one notable for the persistent drought which visited some eastern districts of Scotland. While the rainfall for the year was below the normal over a large part of the country, and greatly below it over a certain limited area, there were well-defined regions over which the year's aggregates differed little from the normal, and some in which there was a decided excess. A few of the more noteworthy figures for the East and West of Scotland may be given:

North-West.

	Inches.		Inches.
Glenquoich...	122.2	Ardgour ...	111.6
Portree ...	73.0	Fort William	84.0
Kinlochquoich	128.8	Glencarron ...	87.0

West.

	Inches.		Inches.
Benmore ...	94.0	Glasgow ...	36.3
Dunoon ...	86.5	Oban	58.1
Greenock ...	68 9	Paisley ...	47.5

North and North-East.

	Inches.		Inches.
Nairn ...	27.3	Forres ...	24.1
Aberdeen ...	27.5	Huntly ...	31.5
Wick	27.4	Balmoral ...	29.9

East and South-East.

	Inches.		Inches.
Dundee ...	17.1	Perth... ...	20.5
Edinburgh ...	22.4	St. Andrews	21.3
North Berwick	21.1	Loch Leven	31.9

Inland Districts.

	Inches.		Inches.
Kingussie ...	28.3	Peebles ...	34.3
Grantown-on-Spey	31.3	Kelso... ...	25.0
Glenlyon ...	64.8	Moffat ...	54.6

A glance at these tables shows the usual contrast between West and East. In the first two groups, excepting Glasgow, all have rainfalls of over 40 in., and in the following two groups not a single place has a rainfall of that amount. The extreme range of rainfall over the whole of Scotland appears to have been unusually large. At one extreme we have Kinlochquoich, lying to the west of Invergarry, with 128.8 in., or more than seven times as much as Dundee with its small aggregate of 17 in.

At many stations the total did not differ greatly from those for 1910. Of recent years, and considering Scotland as a whole, 1903 was generally the wettest and 1902 generally the driest. The North and East of Scotland had a rainfall below the normal, and in Forfarshire, the eastern fringe of Perthshire, and in Fifeshire the deficiency was very pronounced—as much as 40 per cent. at Dundee, 35 at Perth, and 25 at Loch Leven. In Midlothian the western limit of the area of deficiency was soon reached, and, roughly speaking, the whole of Scotland in the west

of a line running through Invergarry, Creiff, West Linton, Biggar, and Langholm had fully its normal rainfall, with an excess of more than 10 per cent. at some widely-scattered places such as Glenquoich, Poltalloch, Greenock, Paisley, and Cargen. At Glasgow there was a slight deficiency, as on the Ayrshire coast, and in the extreme South-West divergences from the normal, one way or another, were unimportant.

Skin Diseases School in Edinburgh.

It is expected that the Edinburgh School Board's special school at 41, Lauriston Place, for children suffering from skin diseases will be opened about the end of January. When the Board acquired the property and announced its intention of converting the dwelling-houses into a school for children affected with skin diseases, the proposal called forth vehement protests from residents in the neighbourhood, who objected to the opening of such an institution in their midst. The Board, however, made clear that their intention was not to add another dispensary or hospital to those established in the district, and affirmed that the school would be conducted under the strictest supervision. In deciding to establish the school the Board proceeded under the Education of Defective Children (Scotland) Act, 1906, which gave power to make special provision for the education and medical inspection of epileptic, crippled, or defective children up to the age of 16. The new school will accommodate sixty pupils in three classes of twenty. The staff will consist of a head teacher and two assistants, a nurse, and a caretaker. The ages of the pupils will range from 4 to 16 years. The school will be conducted under the supervision of the Board's medical officer, who will select the cases for admission to the institution. It should be noted that treatment for disease is not provided at the school. The pupils will be in attendance either at a dispensary or on a medical practitioner, and the Board's arrangements merely provide for such supervision as will make certain that the prescribed treatment is being followed. The scheme has been approved by the Scottish Education Department, who are to pay special rates of grants to the Board for the school. Twenty pupils will earn what fifty earn in the ordinary school.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

WEST YORKSHIRE.

Tuberculosis Dispensary in Bradford.

As a corollary of the compulsory notification of pulmonary tuberculosis, the Bradford Corporation has determined to open a dispensary for advising and treating any consumptives who may be induced to attend it. But, with that peculiar perversity in doing the right thing in the wrong way so commonly displayed by local authorities, it is proposed to establish the dispensary on an upper floor of the milk dépôt premises in Morley Street. Even though there is no actual connexion between the premises, the proposition is radically bad both from the point of view of sentiment and also of possible contagion. It is difficult to make the poorer classes understand that their expectoration, if containing tuberculous bacilli, might be a source of contagion. There are sure to be tuberculous individuals loitering about a building of this character, and in the summer months, if they expectorate near it, the sputum will become dried and blown about, so that it is not at all improbable that some of it may get wafted into the milk dépôt. Thus there may be an actual spreading of the very disease that it is hoped to eradicate. Another criticism of the proposal that it is necessary to make here is that the scheme has never been even mentioned to the local medical profession. The medical officer of health has, of course, reported on the matter; but, before a question of this kind is tackled, the local profession ought to be asked to express its opinion on it. It seems that the necessary alterations to the building to adapt it as a dispensary will cost £1,180, and the upkeep will be about £800 a year.

It is to be hoped that the committee will employ part-time local medical practitioners to attend to the consumptives, and not engage a whole-time officer. The constant encroachments on medical practice that are taking place in the great cities are limiting medical work, and the local practitioners should always be given the preference in new schemes for the prevention or treatment of disease.

Bradford Babies' Welcome.

Yet another scheme of the Bradford Health Committee! It is proposed to recommend the City Council to take over the work known as the "Babies' Welcome," which has been carried on for some time at four centres by private means. The medical officer of health of Bradford, in a report, states that the object is to provide medical attention for weakly children, and to give advice to the mothers as to the children's treatment, clothing, etc. It is thought that some financial assistance may be obtained from the Board of Education and the local Education Committee. Probably eleven centres would eventually be opened. The present estimate of cost is: Salary of medical officer, £250; salary of superintendent, £100; hire of rooms, £140; sundry items, £10; total, £500. Here again we would urge that local medical officers should be appointed at a yearly retaining fee to do the work. It has hitherto been carried out most generously by honorary medical officers. Why cannot their services be retained and an honorarium paid them?

Proposed School Clinic at Shipley.

The Shipley Education Committee has unanimously resolved to establish a medical and dental school clinic. The Chairman of the Subcommittee which made the recommendation said "that it was no use continuing the medical examination of the scholars unless something was done to deal with the defects and ailments tabulated from time to time by the school medical officer. It was not proposed to limit the benefits of the proposals to the children of necessitous parents, but to throw them open to the whole of the scholars attending the elementary schools, subject to certain conditions designed to guard against the undermining of parental responsibility." The treatment would be carried out by the school medical officer and school nurse. He also said "he believed most doctors would be only too pleased to know that the children were being attended to. As the school medical officer is the inspector, and as the Shipley school clinic, if established on these lines, would directly contravene the policy of the British Medical Association as laid down at Birmingham, it is to be hoped that the Shipley doctors and the Bradford Division will shortly consider the propriety of opposing the proposed method of carrying out the work. Inspection and treatment must be dissociated, and it is to be hoped that the Shipley education authority will recognize this fact.

SOUTH WALES AND MONMOUTHSHIRE.

Treatment of School Children at Cardiff.

At the monthly meeting of the Board of Management of King Edward VII Hospital at Cardiff on January 10th the question of the treatment of school children was discussed. The Medical Board considered that the city and county authorities should make some provision for the treatment of children found to be defective. Dr. Paterson referred to the great overcrowding of the out-patient department, and pointed out that, in other parts of the county, school clinics had been established, while nothing of this kind had been done in Cardiff. If a clinic were established in Cardiff, only those cases requiring special attention would be sent to the infirmary. A letter from the medical officer of the workhouse was also read, asking whether a number of cases of ringworm might be sent to the infirmary for *x*-ray treatment. Eventually it was resolved that a committee of the Board of Management should meet the Medical Board to discuss the whole matter.

Alleged Malingerer.

At Llanelly County Court the Old Castle Tin Plate Company applied for the reduction of compensation awarded to Mary Morris. His Honour was assisted by

Dr. Lancaster of Swansea as assessor. The girl had originally crushed her hand in 1909, and had a superficial wound which the medical man who first saw her described as a graze. The wound had almost healed on several occasions, but each time broke down as soon as the respondent was removed from medical supervision. Several medical men gave evidence, and all of them expressed the opinion that the girl was tampering with the wound, though she denied that she had been aggravating it with a pin, as was alleged. The girl was persuaded to go into hospital, and the bandages were sealed. In a fortnight the wound was healed, but after leaving hospital it again broke down. No doctor appeared for the respondent, and His Honour gave judgement for the applicants.

India.

[*FROM OUR SPECIAL CORRESPONDENT.*]

ASSOCIATION OF MEDICAL WOMEN.

A COUNCIL meeting of the Association of Medical Women in India was held in Ludhiana on December 19th and 20th, 1911. The members present were: Dr. Benson (Bombay), President, Dr. Balfour (Patiala), Dr. Vaughan (Simla), Dr. Brown (Ludhiana), and Dr. O'Brien (Lucknow).

A letter was sent to His Excellency the Viceroy urging that the scheme at present under consideration of the Government of India for a properly organized Government service for medical women should be inaugurated on the auspicious occasion of Their Imperial Majesties' presence in India.

A memorial was forwarded to Her Excellency Lady Hardinge petitioning for the formation of college hostels for women students in all the university cities where mixed education is carried on in India. It was pointed out that such hostels have been at work most successfully in all the large educational centres in England for very many years. Each hostel should be under the guidance and control of a lady warden, who should be experienced in educational methods, should be attached to the professional staff of the teaching institution, and, when possible, should herself have a university qualification. The council of the association, while admitting that there are numbers of women who were prevented by social and religious customs from making use of these centres of mixed education, expressed the opinion that the formation of such hostels, which would be designed for the reception of students of arts, law, science, and medicine, would very greatly help to attract women of the higher social ranks both among Indians and the domiciled community. The memorial pointed out that there are in existence many centres for instruction in arts and science—such as the Isabella Thoburn College, Lucknow; the Bethune High School and College, Calcutta; the Maharani's College, Mysore; and the N.I. School, Ludhiana, for medical work—designed entirely for the teaching of such women as cannot take advantage of the many facilities offered by Government for mixed education.

A note was sent to the Honorary Surgeon-General, Sir C. P. Lukis, K.C.S.I., thanking him for his continued interest in the welfare of medical women, and begging for the appointment of women inspectors, who should inspect the work and conditions of life of all medical women, but especially of the lower grades in remote districts. The need for such inspectors has long been recognized and fully supplied by the Educational Department. Their appointment would do much to improve the character of the medical work. The council welcomed the inquiries that the Honorary Secretary of the Countess of Dufferin's Fund was making bearing on the improvement of the class of medical women working under the fund, and expressed the opinion that the standard of the Preliminary Examination should be raised, and strongly deprecated a shorter period of training or a lower standard of examination from women than from men. It was also of opinion that no scholarships for medical training should be granted except on the results of competitive examination, but that the character of the candidate and her general fitness for the profession should also be taken into account.

Correspondence.

BONESETTING.

SIR,—I was glad to see your informing article on "bonesetting," and would remind your readers of an excellent paper by Sir James Faget, entitled "On cases that bonesetters cure."—I am, etc.,

Aboyne, N.B., Jan. 14th. R. FARQUHARSON.

ARTIFICIAL RESPIRATION OF THE APPARENTLY DROWNED.

SIR,—Regarding the case reported in your number of January 6th by my friend, Dr. Leonard Hill, of a man on whom he employed alternately the "Schäfer" and "Silvester" methods of artificial respiration, the great venous congestion of the face and neck which he observed and supposed, no doubt rightly, to be due to expression of the blood from the abdominal organs, was only possible owing to the fact that the heart had entirely ceased beating. Had the heart still been acting the expressed blood would have been driven by it through the lungs, and doubtless the patient would have recovered. When the Silvester position and method were adopted the blood in the veins of the head and neck was caused, by gravity and suction, to flow back into the venae cavae and right auricle, and the congestion disappeared, to return on again adopting the prone position and compressing the abdominal organs. The case was evidently not one of apparent but of complete drowning, and Dr. Hill was operating upon a dead body. The appearances he describes are precisely those which are to be expected in such circumstances.—I am, etc.,

Edinburgh, Jan. 11th. E. A. SCHÄFER.

SIR,—Bacon's saying, "Variety of ignorance is the child of medicine," is my excuse for trespassing on your columns. Over and over again we read of very prolonged efforts at artificial respiration in all types of suffocation. Failure to resort to artificial respiration may lead to censure at an inquest. Thus the routine practice of artificial respiration has become a legal necessity. But I am bold enough to say that it is an over-estimated form of procedure in a large proportion of cases in which it is practised, and I refer especially to those cases which have been removed from the water; nay, were a skilled and ingenious surgeon at hand, not even direct squeezing of the heart muscle would resuscitate them. The nervous system dies very quickly after its blood supply is cut off; I believe half an hour is the limit.

And, as regards the methods of artificial respiration, I cannot but think that one method is as good as another. The up-and-down thrust of the chest walls with an open mouth seems quite to coincide with any form of procedure that imitates the bellows action of respiration. Of course, any dirt, water, or other matter obstructing free entrance and exit of air obviously must be disposed of by common sense measures. If "the Schäfer method produced great venous congestion of the face and neck, due no doubt to expression of the blood out of the abdominal organs, the liver in particular," as stated by Dr. Leonard Hill in a letter on artificial respiration in the apparently drowned (issue January 6th), I maintain the one remedy was venesection. When a subject is suffocated completely, the circulation is hurried to an increasing degree of rapidity, and the pulse becomes like a thread to the feel. Stasis follows, with dilatation of the right cavities of the heart. Diapedesis succeeds to this, and the subject succumbs to paralysis of the heart muscle from obstruction. Briefly, the vascular system is strangulated. Surely, there is one operation for its relief, and a sure one, of letting out poisonous and imprisoned products. It is the use of the lancet, just as release is given to a strangulated knuckle of intestine by the knife, and its circulation opened up. But to perform venesection in every case of suspended animation is clearly an abuse of the practice, and when artificial respiration, heat, galvanism, friction, amyl nitrite, etc., do not quickly answer their purpose as palliatives, then the radical operation of blood-letting must be performed without delay. Moreover, to have a vein opened, or to be prepared for venesection, during the process of

artificial respiration will, in some cases, put the patient, as it were, in double harness.—I am, etc.,

Alton, Hants, Jan. 6th. JOHN FREDK. BRISCOE.

THE ADMINISTRATION OF OXYGEN: A PERSONAL EXPERIENCE.

SIR,—Dr. Leonard Hill's statements as to the value of pure oxygen administered at a suitable temperature through a suitable apparatus I can from personal experience attest.

Last year I took out at Howe Bridge Rescue Station a course of instruction in the use of the Siebe-Gorman oxygen apparatus, receiving at the end of the course a certificate of proficiency.

The curriculum consists of two hours' work in galleries filled with smoke and sulphurous vapours; the galleries are such as one meets with in a coal-mine, tunnels through which one had to travel either on all-fours or in a crouching position. The floors are of hard, sharp flints; the roof supported by wooden props and bars. The work consists of filling and emptying a coal-tub (small wagon) with bricks; setting wooden props to support the roof, bringing out a mannequin representing a dead, or perhaps grievously smitten, man; fixing a brattice screen, and other jobs such as one would be called upon to do in case of fire in a coal-mine. During the practice we breathed 80 to 90 per cent. of pure oxygen through the apparatus for the whole of the time.

My personal condition at the end of the two hours was one of extreme fitness. I felt no feeling of fatigue, notwithstanding that I was in no sense in training. Hungry as a hunter, my sandwich case was soon emptied; my pulse was regular, and never above 85; and each afternoon, following the instruction and practice, I managed to get through a much increased series of professional engagements, for, since I devoted the most of my mornings to attendance at Howe Bridge, my other duties had to be crowded into the afternoons and evenings of the same days.

During the six weeks or two months over which the course of instruction extended in weekly practices, I felt more fit than I had done for the six previous months. When I began the course I was barely convalescent from influenza, which left me with some bronchial catarrh; this latter always seemed to be much improved at the end of the two hours' inhalation of oxygen.

The gentleman (a well-known mining engineer) with whom, and with whose employees, I undertook the course had a similarly favourable experience of the effect of the gas upon his appetite and his general sense of well-being.

I am convinced of the value of oxygen in rescue work. I am convinced of the value of oxygen, properly administered, as a therapeutic agent, but I believe that Dr. Leonard Hill's comparison of the usual methods of its exhibition to the effort of a man "to affect the composition of the sea by emptying his bladder into it," is quite justified; and I trust that this expression of his opinion, in conjunction with that which the airy, graceful, and facile pen of Sir James Barr in his well-known pamphlet on the *Treatment of Pneumonia* has already—years ago—given to the medical world, will suffice to ensure that the oxygen cylinder is no longer used as a toy—a dangerous toy—but as a serious therapeutic agent of value in many and diverse conditions of general systemic failure when the gas is administered at a proper temperature through a suitable apparatus.—I am, etc.,

MAURICE G. MCELLIGOTT, F.R.C.S.Ire., D.P.H.,
Honorary Surgeon, St. John Ambulance Brigade.

Wigan, Jan. 14th.

STATE SICKNESS INSURANCE IN GERMANY.

SIR,—In the BRITISH MEDICAL JOURNAL of January 13th is an important article on "State Sickness Insurance in Germany." It is published by instruction of the British Medical Association State Sickness Insurance Committee. I wish to call attention to the reply to Question 5 on p. 88, which commences thus: "The effect of the insurance system on recruiting for the profession has been *nil*," and more words following to the same effect even more emphatic.

Compare this with the statistics from Germany quoted on p. 101. The medical practitioners in the German Empire in August, 1911, numbered 31,852, against 31,631 a year before, an increase of only 0.7 per cent. It would certainly appear from this that the recruiting for the profession was not very successful in Germany, and that the rate of increase of the profession could not keep pace with the increase of the population.

Again, the number of medical practitioners in Germany is smaller than the estimated number in Great Britain (p. 90), whilst the population of Germany, of course, is far larger than that of Great Britain.

I do not know the explanation of these facts; perhaps Dr. Renshaw can explain them?—I am, etc.,

Newport, Mon., Jan. 15th. C. S. VINES.

THE MEDICAL SECRETARYSHIP.

SIR,—I have read Mr. Owen's letter in the JOURNAL of January 13th with much interest. Any letter over his signature will be widely read, if for no other reason than that he writes with intimate knowledge of the Association, having been Chairman of Council for a period of three years.

Armed with this inside knowledge Mr. Owen appears to have come to the conclusion that the two most important offices in the Association are the Editor and the Medical Secretary.

He says that the financial success of the Association depends greatly upon the manner in which the JOURNAL is edited. No doubt that is the case, but it also depends on the way the JOURNAL is managed, and, in my opinion, the financial success is in a very great measure due to the business Secretary. Mr. Owen lays stress on the Association having at one time had an Editor who became a dictator. Assuming that is admitted, facts show that during that period the Association advanced in numbers and wealth in a manner it has never done before or since, and it must always be a matter of dispute as to whether that period of prosperity was due to the Editor, or the business Secretary, or to both.

I also write with some special knowledge of the Association, as I was first elected a member of the Council in 1892, and have had the honour of occupying the position of Treasurer to the Association from 1899 to 1902, and the Chairmanship of Council from 1902 to 1905, and have since had a seat on the Council.

On looking at the history of the Association, it is striking that up to 1872 the Association never employed a trained business Secretary, but a medical man always occupied that post, and the Association had fallen into such financial difficulties that there was serious talk of calling up the guarantee and winding up its affairs. Since 1872 the Association has had two business Secretaries, and has accumulated a reserve of over £106,000.

In the light of these facts, I think it is only fair that the Association should recognize that for its success there are three equally important offices.—I am, etc.,

Montreux, Jan. 15th. ANDREW CLARK.

SIR,—The appointment of a new Medical Secretary to the Association at this juncture demands plain speaking.

In common with others I have received a circular from one of the applicants for the position, in which the statement is made that a certain gentleman is making application for the post, and is supported by some members of the Council. His name appears on a list of members of the Council enclosed with the circular. Should he have applied without first having resigned his seat the impropriety of such action ought to be obvious to anyone without the necessity of calling attention to the fact, if fact it be. Furthermore, referring in general to the appointment to be made, one is bound to urge upon the Council that in view of the strong expressions of opinion on the National Insurance Act arising on every hand, no man ought to be appointed who by speech or action is committed to the "wait and see" policy. Should this not be done, a feeling of resentment will arise among the rank and file which will far exceed that at present existing in so many places.

As Secretary and Representative of a Division which, while strongly disagreeing with much that the Council has done, has yet carefully refrained from any expression of criticism, not to say censure, I feel bound to state what is the almost universal feeling of those with whom I have discussed the matter.

Surely the right course is to postpone making the appointment until after the Representative Meeting has met.—I am, etc.,

R. WALLACE HENRY,
Hon. Secretary and Representative of the Leicester and Rutland Division.

Leicester, Jan. 15th.

SIR,—Mr. Edmund Owen has given the Council a timely, and very grave warning. For myself I should say let the appointment not be made. The Medical Secretarial Department could, with very great advantage, be "closed down" until the government of the Association is more settled. At least it would be a saving of vast sums spent quite recklessly on "agenda" books and useless literature of all kinds.

As to the Medical Secretary and the "dictatorship," it is a most fortunate thing for the Association that Mr. Smith Whitaker has secured a more profitable berth.

It will be a serious matter for the present Council if it fills up the office of Medical Secretary at present; don't let them defy the members of the Association much longer; they have done and are doing day by day a great deal too much to split up the Association—they cannot succeed in destroying but they can weaken it. We have been too long governed by a coterie, and, worse than all, a political party. This must be ended!—I am, etc.,

Old Trafford, Jan. 16th. JAS. BRASSEY BRIERLEY.

SIR JAMES BARR AND THE INSURANCE ACT.

SIR,—Sir James Barr's reply to Dr. Dixon and Dr. Hislop, in the JOURNAL of January 13th, should give a quietus to accusations of political partisanship.

Those who know Sir James Barr's strong and independent character are well aware that he would never allow personal or political considerations to interfere with his public duties. He could, no doubt, afford to disregard the opinions of Dr. de Coverley Veale and Dr. Lishman, the latter of whom fails to obscure his own Radical proclivities; but I would remind these gentlemen that Sir James Barr's letter was addressed to the public, and surely the public have as good a right to be protected against bad legislation as the medical profession.

Personally I thought his letter most refreshing, and I was sorry that its author had not been moved to indite it sooner. As it is, however, it cannot have failed to influence the thoughts of many members of the public for whom it was intended, and so will have done good.—I am, etc.,

Little Sutton, Chester, Jan. 16th. H. W. NOTT.

SIR,—It appears to me that the present correspondence, which is assuming the qualities of a discussion on the ethical principles of the Insurance Act, should have occupied our attention before the Act had passed into law. I believe that no sect of the community is better qualified than medical men to discuss the ethical principles of this Act; but those principles have never been challenged, and now we have lost our opportunity. With Sir James Barr I agree, and believe that this Act forcibly demonstrates the fact that this country has followed Germany in the path of degeneracy.—I am, etc.,

Edinburgh, Jan. 13th. FREDERICK PORTER.

A HOSPITAL FOR PAYING PATIENTS.

SIR,—Mr. Lawrie McGavin's letter in the JOURNAL of January 13th is another instance of the unwisdom of expressing an opinion without the trouble of ascertaining the facts of the case.

He says: "By what right Dr. Hilliard claims to command a greater knowledge of nursing homes and their management than I do myself I cannot quite see," etc.

If Mr. Lawrie McGavin had taken the trouble, he could have ascertained that Dr. Harvey Hilliard and the committee of doctors who initiated the idea of the hospital for paying patients—of which committee I had the honour of being chairman—spent much time for many months and held numerous meetings of medical men and others interested, with the object of acquiring all possible acquaintance with the subject of nursing homes. Plain truths are frequently unpalatable fare, and the plain truth of this matter is—that Mr. Lawrie McGavin has expressed an opinion on a matter of which he has no knowledge.—I am, etc.

London, S.W., Jan. 13th. LAUNCELOT ARCHER.

THE NEW CELL PROLIFERANT.

SIR,—With regard to a letter in your issue for January 13th on the origin of some recently published studies on this subject, may I remind your scientific readers that they are evidently based on the work of my brother, Mr. H. C. Ross, M.R.C.S., L.R.C.P., as fully described by him in his book on *Induced Cell Reproduction and Cancer*, published a year ago by Mr. Murray. In Chapter XV of the book, et seq., it was shown that certain substances, when placed upon chronic ulcers, have the power of causing very rapid cell proliferation—the result being verified *in vitro* by the action of the same substances on human leucocytes, and illustrated by photographs of the ulcers and blood specimens. The "new cell proliferant" is probably merely another of these "auxetic" substances, but tested only on ulcers. A paper by me on the subject will be found in the current *Proceedings* of the Royal Society of Medicine and also partially in *Nature* of December 14th last.—I am, etc.,

Liverpool, Jan. 13th. RONALD ROSS.

SIR,—The following extract may be of interest to those who are taking part in the correspondence on this subject. It is taken from a book with the following title: *MATERIA MEDICA or a New description of the Virtues and Effects of all the drugs or Simple Medicines Now in Use. . . . Done from the Latin Original of Dr. Paul Harman late Professor of Botany in Leyden . . . by Edward Strother, M.D. Coll. Med. Lond. Reg. Colleg.*

The extract is as follows:

24. *Consolida Major. Comfrey.*

It is of a sweetish, mucilaginous, and viscous Taste.

It consists of mucous, thick, watry, and oily Particles; from whence it has the following Virtues.

Its sweetish Taste bespeaks it of a temperate and middle Nature, because some saline, and sulphureous Corpuscles are always well blended and incorporated in a sweet Taste; and its mucous and viscous Taste shew it to have a Power of consolidating and gluing * Wounds together.

It mollifies, and is anodyne, because its smooth and oily Parts cover over, and, by its watery, it dissolves, the saline Particles, which hinder a Cure of Ulcers, or Wounds; therefore is it us'd as an internal Vulnerary.

It is a Specifick in Exulcerations, or Excoriations of the Kidneys, especially such as are rais'd from Cantharides; and then it is boil'd in Milk and drank.

It is us'd internally to breed a Callus in Bones that are fractur'd. †

Wherever Acrimony is the Cause of a Disease it is a Specifick; because the viscous Particles wrap up the salts: From whence it is of Use in Dysenteries, and in Ulcers of the Lungs, or in Coughs procceding from sharp tickling Salts, which are betray'd by a tickling dry Cough.

Its Juice express'd glues together, and heals external Wounds.

In short, 'tis emollient, anodyne, agglutinant, consolidating, good in Ulcers and all sharp Humors.

N.B. It is always us'd internally in Decoction, and lest its Particles being viscous, should stick to the Wrinkles of the Guts, 'tis advisable to add to the Decoction the Seeds of Fennel, or some such Aromatick; and *This is a General Rule for all viscous Plants.*

Its Preparations are only Syrup of Comfrey of *Fernelius* whose Dose may be to two Ounces.

Its *Generical Mark;* It has monopetalous, tuberose, cylindrical Flowers, dispos'd into Jags, with four Seeds join'd together.

* N.B. Wounds have two General Intentions, *Agglutination* or *Digestion;* such Wounds are fit for the first method of Cure as have lost no Substance, or made in a Part where an Eschar wou'd be unseemly; namely, the Face or Hands.

† N.B. A Callus is at first a liquid Matter, which in Process of Time is gelatinous, and lastly hardens into Bone; *Papin's* Digester reverses this Method of Nature; and, from an hard Substance, turns it back again to a Jelly: It must be concluded, that Comfrey, if it succeeds, contains a great many earthy Parts in it.

The book from which this quotation is taken was published in London by Charles Rivington and printed at the "Bible and Crown," in St. Paul's Churchyard, in 1727.—I am, etc.,

Manchester, Jan. 13th. CHARLES POWELL WHITE.

SWEETS IN CHILDHOOD.

SIR,—In the correspondence upon this vital question I have failed to see mentioned one of the principal points—that is heredity. I have found that a far greater percentage is traceable to the maternal side.—I am, etc.,

London, N.W., Jan. 12th. PERCY MAY.

SIR,—Two questions have been discussed in the various letters which have appeared on this subject—first, the part played by sugar and carbohydrates in the causation of dental caries, and, secondly, the best method of prevention.

In his paper at the meeting of the British Medical Association Mr. Hopewell Smith asserted that children should never be allowed to eat sweets, on the ground that they are in any case of no appreciable value. Such a categorical assertion naturally attracts attention.

The first letter under this title was a protest against this statement. The tendency of children to carbohydrate starvation and acidosis was suggested by the writer as a physiological reason for their desire for sugar, even apart from its great value as a food at a period of rapid growth.

Dental surgeons agree that carbohydrates are the sole exciting cause of dental caries, and base their conclusions on experimental grounds which may be accepted. The evidence that sugar and sweets are predominate among the carbohydrates is not so definite. The work of the late Dr. Miller has been referred to as if it were conclusive, but his own words show that he himself did not consider that sugar, as such, was a very important factor in the production of caries, and was opposed to its prohibition to children.

The experiments of Mr. Hopewell Smith are confined to two subjects, and, although scientifically performed, do not justify any wide-reaching conclusions. That stagnant sugar would have evil effects may be admitted, but the proof that sugar does stagnate is not clear. Both cane-sugar and grape-sugar are readily soluble, and the persistence in the mouth of the colouring matter of sweets is not evidence of the presence of sugar. Little importance appears to be attached to the general malnutrition which may result from eating an excess of sugar. Medical practitioners are familiar with the anaemic child with a poor appetite, who has been in the habit of eating sweets at all hours, and the rapid improvement which follows the prohibition of carbohydrates and the administration of alkalis. The disturbance of the alimentary tract in such instances certainly extends to the mucous membrane of the mouth. It is improbable that such and similar factors are negligible.

Very little importance, or none at all, is ascribed to predisposing causes by dental surgeons. Dr. Sim Wallace dismisses the possibility of any hereditary factor on the argument that it would be an instance of the inheritance of acquired characters. This is not necessarily so. Hereditary conditions, such as haemophilia, must arise as variations and not as acquired characters. Variations are changes in the germ plasm, and undoubtedly can be inherited. There is no reason why a change in the constitution predisposing to dental caries should not arise as a variation and be hereditary.

With regard to the direct prevention of dental caries in children, predisposing causes, whatever importance they may possess, become a secondary question, for attention will doubtless be directed to them for other reasons. I do not believe that sweets should be universally tabooed. The difficulty is to find a correct and yet practical method of finishing a meal. An apple is ideal, but fruit cannot always be forthcoming, and, apart from it, nearly every meal terminates with carbohydrates in accordance with the dictates of appetite, and will undoubtedly continue to do so.

Mr. Turner asks some historical questions. The prominence of bees in ancient literature is suggestive of the value set on sugar. The honey of Mount Hymettus has no particular virtues. The frequent allusions to it in the Greek classics is due to the fact that it was the only solution of sugar readily obtainable by the Athenians.
—I am, etc.,

London, E., Jan. 8th. H. LETHEBY TIDY, M.D.

SIR,—The assertion that a child craves for sweets in obedience to physiological appetite is to my mind a dangerous one. If this be conceded, then we shall quickly have all the indiscretions and excesses of humanity (dietetic and otherwise) justified by physiological requirements.

The question before us is "Sweets in Childhood" (not "Sugar in Childhood"), and its bearing upon the causation of dental caries.

With one exception the various contributors would appear to have considered the problem from the latter standpoint, and in doing so to have assumed that, the best sweets being used, the question is simply one concerning the action of pure sugar. Personally, I do not think such a consideration practical. It is a consideration of ideals which do not exist. In discussing this matter I have in my mind the confection which is consumed every day by the greater proportion of children of this country, namely, those attending the public elementary schools. The sweets consumed by these children are those which can be procured at the cost 1d. per ¼ lb. Two considerations appeal to the child in purchasing them: (1) The seductive and attractive appearance of the commodity, (2) the quantity which can be obtained for the money.

The above factors alone guide the child in its selection.

Many of these sweets are given appetizing vegetable names—for example, lemon drops, pear drops, acid drops, pineapple drops, etc. They are flavoured artificially with various organic and inorganic compounds, frequently of an acid nature, such as amyl nitrite, and too frequently coloured with substances which cannot be regarded as innocuous. The sugar used in their manufacture is of the cheapest kind and often gritty from adulteration. The vast majority of sweets consumed in this country are of this nature. Can it be said that they are not factors in the causation of dental caries?

Further, in many cases, especially amongst the younger children, the sweets are not sucked or allowed to dissolve gradually in the mouth, but are ground up by the molars, thus running the risk of chipping the enamel and also of wedging broken particles of the sweetmeat between, and upon the teeth, which particles are slow to dissolve. Why does one so frequently see the lower molars of children of the ages of 4 and 5 years hopelessly carious? May this not be one reason?

For the past three years I have been engaged in the work of medical inspection. Half of this period has been spent in urban colliery and cotton manufacturing areas, the other half in purely rural districts. I have taken some observations and interest in this subject. My figures show very conclusively that the actual percentage of carious teeth is greater in urban than rural districts. My present sphere of work covers a tract of country sixty miles in length, comprising fisher folk, salt and iron miners, agricultural labourers, and farmers. There are two or three small industrial centres, the rest being made up of villages of varying size, and small hamlets on the fell sides. Within this circumscribed area there are centres which stand out as veritable foci of dental caries. One finds a tiny village where the teeth are above the average, and within three miles another larger village where the teeth are so bad as to warrant some local explanation, and in every case one finds there is in the larger village the usual shop where the children can purchase sweets. I am not inferring that this is "the" cause. I think it is one out of many. The teaching of the usual hygienic precautions is the same in the two schools; wherein lies the difference? In many of these foci I have asked the schoolmaster and even local practitioners if they could assign any reason for it, with the almost invariable reply, "They have too many pennies to spend." I have further observed that in elementary schools the teeth of those children whose parents are more comfortably circumstanced have frequently very bad carious teeth. If I may quote an example without being invidious, the teeth of the publican's child are often amongst the worst in the school; such children are often given a penny from the till when leaving home, and in addition are frequently the objects of maudlin bounty.

The most perfect teeth I have seen have been in the mouths of the children of the extreme poor—children who never knew anything but slum life, and who had neither shoes nor stockings, and whose garments were but a travesty; they never possessed a toothbrush. It will be said: "These children eat coarser food." They may do so, but they eat more carbohydrates and less detergent material, also they eat fewer sweets, and possibly, which is more to the point, there is something in their organizations which resists both sweets and starch.

Dr. Hildesheim states that this correspondence has

digressed into a discussion of the etiology of dental caries. It could hardly do otherwise; any man who examines teeth systematically must have this point ever in his mind. It is so evident that very little is known about the true causation of the condition. The commonly accepted theory that the deposition of starchy material upon and around the tooth, and its subsequent fermentation by micro-organisms thereby leading to the production of acid media, does not explain everything. It is a comforting theory, but if it be the true one it is reasonable to suppose that the acid is present in reasonable and appreciable quantities. I have never been able to satisfy myself that this was so, one so frequently obtains an amphoteric reaction. Further, the buccal cavity teems with micro-organisms. An acid medium is not an ideal one for bacterial growth. One can find the pneumococcus in mouths which contain carious teeth. This organism will not grow on an acid medium.

Dr. Hildesheim makes some valuable suggestions for organized research; he advocates somewhat boldly "That the powers that be should be urged to establish a network of dental clinics throughout the land." This is sublime in theory, but impractical at the present moment; there are not sufficient dentists to do the work: the problem is colossal in its magnitude. Of the other lines of research suggested by this writer many are, I regret, only to be pursued within the walls of a dental hospital; I fear the average dental practitioner has neither the time nor the material at his hand. If I might add to Dr. Hildesheim's list, I would suggest that "the practical bearing of acid and alkaline drinking waters" be investigated. I have noted that the teeth of children living in districts where the drinking water is markedly alkaline are whiter, stronger and freer from caries, and that in those districts where an upland surface water is used, which is frequently acid, that the reverse obtains, and there is a greater frequency of deposits of tartar upon the teeth.

I am of opinion that the cause of caries is not to be found so much in the formation of an acid medium within the mouth, as in an actual failure of development. With this end in view I have for some past been taking observations upon the eruptive period of the various permanent teeth. These figures will be published in due course, but they tend to show that the teeth erupt at a much earlier age than is given by most of the textbook authorities.—I am, etc.,

Hest Bank, Lancaster, Jan. 5th. WILLIAM F. J. WHITLEY.

SIR,—This much discussed question has again cropped up in your columns, and perhaps I may be permitted to say a word or two on the point, since undoubtedly it is an extremely important matter.

It is the old crux—the physiologist says sweets are beneficial (and rightly so), and the dentist says that sweets are detrimental (and also rightly so). The question is, How can these two teachings be reconciled?

Dr. Howarth states that "glucose in the stomach is immediately split up into alcohol and CO_2," but this is not what ordinarily occurs in the mouth. Your correspondent may verify for himself that a mixture of glucose, saliva, and mouth organisms undergoes a lactic acid fermentation, and it is this acid which by dissolving the lime salts of the teeth prepares the way for bacterial invasion. Now, I have shown in my recent work on the *Prevention of Dental Caries and Oral Sepsis* that in the saliva resides the normal protection of the teeth. Sweets certainly give rise to an increased flow of saliva, but not to anything like the extent as when combined with a weak organic acid (as sugars are normally in nature). This increased flow of watery, alkaline, and antiseptic saliva tends to sweep away and neutralize any sugar adherent to the teeth; but some sugars form with the mucin of the saliva an extremely viscid mixture, which does not thus tend to be removed. I have shown, however, that the addition of a weak acid, by precipitating the mucin, prevents the formation of this sticky compound, and thus the teeth escape. This, then, is the solution of the problem. Sweets are beneficial so long as their débris does not stagnate in the mouth, and such stagnation and fermentation may be prevented by combining the sugar with a weak organic acid, such as tartaric, citric, or acid potassium tartrate ($\frac{1}{4}$ to $\frac{1}{2}$ per cent.). Used thus, no harm whatever will accrue to the teeth either from the sugar or the acid, although it is the exact antithesis of what has been taught for 400 years past—that is, that acids can be beneficial to the teeth.—I am, etc.,

Dental School,
University of New Zealand,
Dec. 11th, 1911. H. P. PICKERILL, M.D.

"A BIOLOGICAL VIEW OF THE CANCER CELL."

SIR,—On returning here I find, in your issue of December 23rd, 1911 (p. 1678), your comments upon my letter with the above title. The "misquotation" of "complete" for "complex" was either a misreading in copying the draft or a lapse of the typewriter, which wrote "te" instead of "x." The strictures upon the lines cited by me from your article remain correct whether the "organism" was "complete" or "complex," or both. Since it has been my privilege to study and to make investigations in embryology for upwards of thirty years, and since I have taught it in the University of Edinburgh for nearly twenty years, it can scarcely be expected that I should be disposed to accept as true teachings of embryology any of the assertions appended to my letter. I showed your remarks to one of my colleagues, D.Sc.Lond. and University Lecturer in Invertebrate and in Tropical Zoology, and he agreed with me that the references to similar "potentialities of the cleavage cells" in "sponges, coelenterates, echinoderms, annelids, amphioxus," were not true. Since your writer adds that this is also true "in thousands of cases well known to every zoologist or embryologist," it would seem to follow that my colleague and I must be the most ignorant zoologists and embryologists in the world, for we do not know it.

Of all the groups cited in the comments, the one in which the cleavage phenomena are best understood and best investigated is that of the annelids. Here the facts laid bare by the minute painstaking researches of E. B. Wilson, Eisig, and many others flatly refute your writer's assertion.

In the study of "cell lineage" these observers have demonstrated the potentialities of every cell of the early cleavage, and we know that the facts of the normal development are diametrically opposed to the interpretations given by your writer in the article and in his comments. Moreover, the finds of so-called "experimental embryology," which is in reality "experimental pathology," cannot be applied to the natural conditions obtaining in normal development. Further on the writer makes the cells of trophoblast or of its equivalent—for, as I have been able recently to establish, a "trophoblast" or syncytium occurs even in fishes—"subservient to the needs of the embryo." How? Certainly not in a nutritive fashion. The phrase he employs may mean anything, but, no matter what it mean, the trophoblast or its equivalent is never subservient to the needs of the embryo, any more than the fern plant is "subservient to the needs of" the prothallus. This is not a matter of opinion, but a statement of fact. In introducing the term 'trophoblast" in 1889, Professor Hubrecht did indeed imagine that it had for the embryo a nutritive significance. But the assumption is baseless, and *to-day there does not exist in the whole literature of embryology a particle of evidence to show that trophoblast has any nutritive import whatever.* Indeed, unless at the proper moment the embryo set about its suppression, instead of feeding the embryo, the trophoblast will devour it. The expression "thousands of cases" used by your writer is a mistake for "*not a single case.*" Moreover, the references by your writer to various invertebrate animals, and to thousands of mythical cases, are quite beside the point, which related to mammalia development in general and human embryology in particular.

As to the second half of my letter, I have no love for "parables" any more than for "Christian Science" or for "fairy tales of science." A few simple words will explain matters. The polarimeter is an instrument now used for the purpose of determining the physical characters of many organic compounds, more especially the naturally occurring organic compounds, those found or formed in animals or plants. Prior to 1860 it was employed little, if at all, in chemistry. Then, using it for the examination of the double salts of racemic acid, Pasteur was led to the foundation of a

science of stereo-chemistry or chemistry in space. As many years later he explained, in that work he also laid the foundation-stones of his subsequent researches. Just as the introduction of the polarimeter into the investigation of problems of pure chemistry resulted in the foundation of a new and highly important science of stereo-chemistry, so also the application of the principles of stereo-chemistry and the use of the polarimeter in cancer investigation would—if the aphorism of Pasteur, that "Science is prevision," be true—lead to the complete and final resolution of the chemical nature of cancer. The "child of the desert," or malignant neoplasm, would reveal its true nature. So far as I am aware, the albumins of cancer have never yet been examined—in solution—in the polarimeter. On grounds which are decisive, and which recently I again gave in detail elsewhere, the albumins of cancer are dextro-rotatory bodies, and not laevo-rotatory ones. If this be a fact—and it can be verified or refuted easily—then the scientific investigator knows all that he will ever need to learn about the nature of cancer. "Science is prevision," said Pasteur, and that is why, though possessing a polarimeter, I have not, as yet, made this test for myself. And while nearly 40,000 people annually die of malignant disease in England and Wales alone, a polarimeter can be purchased for about £10 sterling. Why, in the name of common-sense, should there be this never-ending talk and all these public lectures concerning the nature of cancer—all terminating with the confession that the speakers know nothing at all about it—when the question of the stereo-chemical nature of cancer can be settled for ever by a single crucial experiment, as Pasteur would have termed it? To any one who knows anything at all about stereo-chemistry and the action of enzymes or ferments, it is clear that, unlike those of the human body, the albumins of cancer are dextro-bodies. As long ago as 1907 I first stated this and gave scientific reasons, but as yet neither cancer-researcher nor ex-researcher has impugned the conclusion. And why? Simply because scientific truth cannot with success be impugned.—I am, etc.,

Edinburgh, Jan. 11th. J. BEARD.

*** In the passage which has stimulated Dr. Beard to such vigorous criticism there are contained three statements: (1) That the zygote or fertilized ovum in Metazoa multiplies by repeated cell-division to form a number of cells which remain in union and build up a complex organism; (2) that the cells of the Metazoan embryo are at first similar in nature and potentialities to the ovum itself; (3) that the cells become differentiated later in various ways in relation to the performance of special functions. The first of these statements amounts to little more than saying that the egg of a frog after undergoing cleavage develops under normal circumstances into a frog, or that of a starfish into a starfish; the third statement also, apparently, is not controverted by Dr. Beard; the point at issue appears to be that he considers that the differentiation of the cleavage cells takes place from the very beginning, as soon as the egg becomes divided into two or more blastomeres. His letter appears, in short, to be an attack on the second of the three propositions stated above. Dr. Beard has, of course, as much right to his own opinion as anyone else; but the fact so frequently observed, that a single blastomere, separated from the others in an early stage of the cleavage of the ovum, can give rise to a complete embryo by itself, might certainly be regarded as a proof that "at first the cells of the Metazoan embryo are similar in nature and potentialities to the zygote itself," a conclusion which is drawn from the experimental data by many, if not most embryologists.

THE NATURE AND ORIGIN OF CANCER.

SIR,—I fear that I do not see eye to eye with Dr. Brock where he considers that cancer is "a dissociation of personality" somewhat similar to that found in hysteria and allied neuroses. In the latter I agree that "the psychic condition of the patient is one of anarchy." In cancer, on the other hand, there is no psychic condition to be considered but a material pathological state, which can only be explained in a material way. If we are going to account for everything that is mysterious in the nature of life by resting on the assumption of a "vital principle," there is no further need for scientific inquiry. Dr. Brock's "controller" may look after the functional activities of the cells; the "controller of cell growth" governs their reproductive activities.

I believe that the "controller" or "governor" is of the nature of a secretion, and that it is a combination of the secretion of the thyroid, adrenals, and pituitary body. The President of the Royal College of Surgeons in Ireland has published a case [1] of glandular recurrence after extirpation of a carcinoma of the larynx, in which the growths disappeared on treatment with thyroid extract, and asked some important and interesting questions:

1. What is the nature of the influence of the thyroid extract and by what process did the tumour melt? [My answer is that the thyroid furnishes a large part of the governing secretion, the mutinous cells are checked and are brought into line with the loyalists, whose good example softens their hearts.]
2. How far does the existence of such cases go to prove that one of the conditions necessary for the occurrence of cancer in an individual is some defective or abnormal internal secretion? [In my opinion it goes a long way in verifying such a hypothesis.]
3. Why does thyroid extract cure a few cases and leave others unaffected? [For the simple reason that the thyroid furnishes only one of the necessary secretions.]

Cancer occurs, as a rule, after middle age, when degenerative processes affect the ductless glands, along with other tissues of the organism. Recuperative and formative powers are then low, and should, say, the adrenals fail, Nature cannot bring about a compensatory hypertrophy of the other two glands. Significant facts are that the pituitary body generally hypertrophies after thyroidectomy and removal of the suprarenals, and also that hyperpituitarism frequently results in thyroid insufficiency. In those cases, where thyroid fails, I would suggest treatment by pituitary and suprarenal gland substance.

It is perfectly well known that the secretions of these three glands contain specific bodies of a peculiar nature, and that they are absolutely essential to normal metabolism.—I am, etc.,

Wigan, Dec. 24th, 1911. J. THOMSON SHIRLAW.

TREATMENT OF ANTE-PARTUM HAEMORRHAGE.

SIR,—Dr. Bickle asks me to qualify my statement that plugging the vagina is "horribly painful." I did qualify it. I said that it was "scarcely too much" to speak of it as "horrible torture."

I was not speaking of what Dr. Bickle describes as a "rational method of plugging," intended "to excite uterine contractions, and so to control haemorrhage." I agree with him that packing with no other object in view than this can be done with "only a moderate amount of discomfort." I do not think it the best way of attaining the ends in view; but let that pass. The plugging to which my phrase was applied was that done with the double purpose of (1) so tightly stuffing the vagina that no blood can get past the plug, so that blood escaping from utero-placental vessels must be retained *in utero*, and (2) that the uterine arteries are compressed by the plug. I will not discuss whether plugging ever attains these ends; but plugging tightly enough to make their attainment imaginable must cause more than "a moderate amount of discomfort."—I am, etc.,

London, W., Jan 11th. G. E. HERMAN.

[1] BRITISH MEDICAL JOURNAL, July 1st, 1911.

The Services.

NEW HEAD QUARTERS FOR GLASGOW R.A.M.C.(T.).

ON January 9th Lord Haldane, Secretary of State for War, laid the memorial stone of the new buildings at Yorkhill, Glasgow, which are being erected as head quarters and drill halls for the Glasgow Yeomanry and the five Glasgow units of the Royal Army Medical Corps, Territorial Force. The weather was very inclement, a severe snowstorm having been experienced during the previous afternoon and night, and the ceremony occupied only a few minutes. The anticipated spectacular effect was therefore completely marred. Lord Haldane was accompanied by Lord Provost Stevenson, Major-General Spens, commanding the Lowland Division; Sir George Beatson, the Administrative Medical Officer, and a number of Territorial officers and members of the Territorial Force Association. In declaring the stone well and truly laid, Lord Haldane said that he hoped the ceremony would mark a new period in the history of the force in Glasgow. The buildings were a sign of the reality of the Territorial Force, and of its place as part of the national life of the city and part of the organized forces of the Crown. Lord Haldane and a number of the officers were afterwards entertained to luncheon by the Lord Provost in the City Chambers.

Obituary.

ODILON MARC LANNELONGUE, M.D.,

PROFESSOR OF SURGICAL PATHOLOGY, UNIVERSITY OF PARIS.

PROFESSOR LANNELONGUE, one of the leading surgeons of France, who recently died, was born at Castéra-Verduzan (Gers), in Gascony, in 1840. His father was a practitioner of the town. He studied medicine in Paris, gaining the coveted distinction of *interne* in 1863, in which capacity he served under Jarjavay, Denonvilliers, Gosselin, and Cusco. He took his degree in 1867, the subject of his thesis being the internal circulation of the heart. The monograph is based on original research, and is still, we believe, a *locus classicus*. In 1869 he became *professeur agrégé*, the subject of his inaugural address being club-foot. The same year he was appointed surgeon to the hospitals.

In 1870, during the siege of Paris, Lannelongue was director of several ambulances. His first hospital appointment was that of surgeon to the Bicêtre, where he had large opportunities of studying the surgical diseases of old men. He afterwards was on the staff of the Trousseau Hospital for Children, where he remained twenty-five years. He worked at the surgery of the bones and joints and congenital malformations. He was one of the early adherents of Pasteur and recognized the part microbic infection played in necrosis. His ambition was to reduce to order the chaos of different forms of necrosis; he classified them in three principal groups, namely, osteomyelitic, tuberculous, and syphilitic infections. He was a very careful observer and spared neither time nor pains in his clinical and pathological examinations. This fact makes his books on acute osteomyelitis, and his papers on prolonged osteomyelitis, and syphilis of bone, models of scientific precision and accurate observation. His researches procured him admission to the Academy of Medicine in 1883. In the following year he became professor in the Faculty of Medicine, and in 1895 he was elected a member of the Académie des Sciences.

Turning to the study of congenital malformations he published, in collaboration with his favourite pupil Achard, a volume on congenital cysts. Next, in collaboration with Menard, he published in 1891 a book on congenital malformations of the head and neck. He continued his research work, seeking for a curative serum of tuberculosis and the means of cauterizing tuberculous lesions by injections of zinc chloride. He was the first surgeon in France to open the skull for relief of compression of the brain. In the fifty-nine craniectomies done by him for this purpose there was only one death. Among his chief contributions to surgical literature, in addition to the books already mentioned, are memoirs on craniectomy in microcephaly (Académie des Sciences, June 30th, 1890), a new procedure for the treatment of vesico-vaginal fistulae (Société de Chirurgie, 1873), ischaemia as a preliminary to operations (Société de Chirurgie, 1873), osteo-mucous uranoplasty (Société de Chirurgie, 1877), experimental researches on the grafting of dead on living bone (Société de Chirurgie, 1882).

The great esteem in which Lannelongue was held by his brethren is shown by the fact than in 1900 he was President of the International Congress of Medicine held in Paris, and of the International Congress of Tuberculosis in 1905. In the interval he had been President of the Society of Surgery and of the Society of Paediatrics. Last year he was President of the Academy of Medicine.

Lannelongue was successful as a Professor of Surgical Pathology, but it was especially in the hospital that he was at his best as a teacher. For some years he had ceased to take an active part in professional life, but his advice continued to the end of his life to be much sought for, and he was too kind-hearted to refuse it, especially to poor patients.

At the age of 68 he made a voyage round the world; he embodied his experiences in a book, entitled *Le Tour du Monde*.

He was a man of boundless generosity, and was associated with his wife in numberless charities in Paris and his native place and at Velmont. Among his testamentary dispositions, of which President Faillières is executor, is a legacy of £28,000 to the Institute for Young Girls, which was founded at Clichy by Madame Lannelongue. An annual sum of £20 is left to the University of Paris, and the same to the Faculty of Medicine for the assistance of necessitous students.

Professor Lannelogue was very intimate with Gambetta, whose acquaintance he had made when serving in the ambulances in 1870, and whom he attended in his last illness. He was himself an active worker in the field of politics, being first a member of the Chamber of Deputies' and afterwards a Senator representing his native department of Gers. He worked strenuously to help in the solution of the difficult problems of repopulation and the suppression of alcoholism. He was ever devoted to the interests of his professional brethren. He was President of the General Medical Association of France for a time, and in that capacity rendered most useful service.

In connexion with the Society of Surgery he founded a quinquennial prize for the surgeon whose work had done most to advance the science. This prize was awarded to Sir Victor Horsley for the first time in January, 1911. He founded a prize at the Academy of Medicine for the widows of doctors, one at the Academy of Science, and one at the Faculty of Medicine for the assistance of students from his own part of the country. He was very fond of that part of France, and endeavoured to develop a thermal station there.

His bier was accompanied to the station by the President of the Republic, who was a personal friend, by several Ministers, a deputation from the Senate, the high functionaries of the University, and the Assistance Publique, numerous representatives of the Academy of Science, the Faculty of Medicine, the Society of Surgery, the Academy of Medicine, and other bodies. The religious ceremony was performed at Castéra-Verduzan, where his body was buried.

Lannelongue went to Paris in 1857, knowing nobody, and having no influence. He made his way by sheer hard work, which is all the more remarkable as, according to himself, he was naturally indolent. He was a man of unpretending manners, and loved simplicity of life. He had a cultivated taste for the fine arts, but his chief happiness was in doing good for its own sake.

SIR CHARLES O'GRADY GUBBINS, M.D.,

SENATOR OF THE UNION OF SOUTH AFRICA.

THE death took place in December, at Newcastle, Natal, of Sir Charles O'Grady Gubbins, a medical man who for many years played an active part in the professional life of South Africa, and for the past ten years or more had been a prominent figure in politics. He was born in co. Limerick in 1855, and received his later education at Trinity College, Dublin, where, after taking first-class honours in history and literature, he entered the medical faculty, and emerged therefrom in 1878 as M.B., Ch.B.

When reinforcements were called for in the Zulu war of 1879, he accompanied the troops sent out as a civil surgeon, and when this engagement was over settled down in practice in Newcastle, Natal. There he held office as District Surgeon, and was in charge of the Base Hospital at Newcastle during the Boer war of 1881. He was also correspondingly employed during the last Boer war. On the first and third of these occasions his services were rewarded by a medal and clasp. Soon after the late war was over he gave up practice and, turning his attention to politics, was sent to the legislative chamber of Natal as senior representative of the Newcastle district. In his new career he rose rapidly. Some six years ago, when the Moor Cabinet was formed, he joined it as Colonial Secretary and Minister of Education. In the former capacity he instituted marked improvements in the Natal hospitals, especially those of Durban and Pietermaritzburg, and as Minister of Education played the leading part in the introduction of the Compulsory Education Act of Natal, and of that which authorized the establishment of a university college in the colony. On several occasions during prolonged absences of his chief he conducted the government of Natal, and was himself several times absent from the colony as its representative on inter-colonial commissions. When some eighteen months ago the union of the four South African colonies was brought about, he was elected a Senator of the new South African Par-

liament, and joined its first Cabinet as a Minister without a portfolio.

The esteem in which Dr. Gubbins was held in political circles is sufficiently indicated by the facts stated as to his career, but it should be added that he was also popular among his professional colleagues, and maintained to the end a warm friendship with many of them. His kindly disposition and genial nature, says one correspondent from South Africa, made him the most popular member of the Natal legislative assembly; in addition to this, he had a grasp of affairs, a clear brain, and instinct for administration which were of the utmost advantage to his party and the Cabinet of which he was a member. Although a successful statesman he never forgot his duty to his profession, but was ever ready to lend a willing ear and a helping hand to any medical deputations who interviewed him while he was Minister. His fitting epitome of the situation under discussion, and his genial and sympathetic hearing, usually accompanied by some sound advice, will be remembered by those of us who had the honour and pleasure to meet him officially. The death of Sir Charles Gubbins created the first vacancy among the South African senators.

He was a younger brother of Surgeon-General Sir William Launcelot Gubbins, Director-General of the Army Medical Staff, and received the honour of knighthood last year.

SOPHIA JEX-BLAKE, M.D.BERNE, M.R.C.P.IREL.

As briefly recorded in our issue for January 13th, Dr. Sophia Jex-Blake died at Mark Cross, Sussex, on January 7th. She was within a few days of the completion of the 72nd year of her life, and had lived near the village in which she died since her retirement from practice in Edinburgh some eleven years ago. During the period of her retirement her health was not good, but she was occasionally to be seen at meetings of medical women, and invariably received the loyal and respectful greeting to which she was eminently entitled.

In her twenty years of work at Edinburgh Dr. Jex-Blake proved a successful practitioner, and left behind her two notable and enduring memorials. One is the Edinburgh Hospital and Dispensary for Women and Children, and the other the Edinburgh School of Medicine for Women. The former was started by her soon after she arrived as a qualified practitioner in 1885 in Edinburgh, as a means of providing a place at which she and others could afford medical and surgical assistance to members of their own sex. Little by little it has developed, until now it is a charitable institution conducted upon ordinary lines, possessed of eighteen beds, an out-patient department of considerable size, and an honorary staff of ten physicians and surgeons, who, with two exceptions, are all medical women. The Medical School for Women she started in 1886, and for many years acted as its Dean and Lecturer on Midwifery; it enjoyed a fair measure of success from the beginning, and, being recognized for graduation purposes by the University in 1894, it became a flourishing institution, and one which still holds at least its own despite the rivalry of a younger place of the same sort carried on within the precincts of the University itself. These two achievements alone would perhaps have sufficed to secure for Miss Jex-Blake a distinct position in the history of medicine and of contemporary life, but her claim thereto really rests upon a much broader basis, and dates back to an earlier period of her career.

A daughter of Thomas Jex-Blake, a Proctor of Doctors' Commons, Miss Jex-Blake on the completion of her education worked for some three years as mathematical tutor at Queen's College, London. Her resolve at this time was to make a career for herself in education, and though she subsequently abandoned it, the idea proved the true starting-point of her work in connexion with the medical education of women and their admission to the degrees and diplomas of licensing bodies in the United Kingdom. During a visit to America for the purpose of making inquiry into the methods there pursued in the education of girls, she came under the influence of the late Dr. Elizabeth Blackwell, who had recently obtained an American diploma in medicine and was about to start medical classes for women. The result was that Miss Jex-Blake remained in America for some years as a student of medicine, and in 1868 returned home with the idea of being able to obtain a diploma and settling down in practice among her own people. The project seemed at first to present no material difficulty, for a year or two previously the Society of Apothecaries of London had waived the regulations requiring candidates to present certificates from recognized schools of medicine in favour of one particular lady and had admitted her to its examinations and licence. Miss Jex-Blake found, however, that the success of this lady—now Dr. Elizabeth Garrett Anderson—had led to the sounding of an alarm among recognized teachers and licensing bodies, who all with one consent began to make excuse whenever an application in respect either of instruction or admission to an examination for a diploma or degree was made by or on behalf of a woman.

Finding all roads to registration under the Medical Act of 1858 closed to women in England, Miss Jex-Blake, accompanied by six other would-be medical women, went to Scotland in the hopes of forcing the doors of the University of Edinburgh. In this attempt they were partly successful, since, after six months of negotiation, the university issued authority for the formation of medical classes for women. During the following six months these seven pioneers pursued their studies almost unobserved, but at the end of that time peace was at an end; their existence and the facilities accorded them had become well known, and an active campaign, not only by Edinburgh students, but also by influential members of the university body itself, began against them. The hostility of the latter was, of course, of chief importance, but the attitude of the students was also a material factor in the situation; Edinburgh students have never been celebrated for the peacefulness of their disposition or their respectful decorum, and on this occasion exhibited considerably less than fair play. Indeed, but for the chivalry of a certain number of them who were known as "the Irish brigade," the position of these women students would have been even more unfortunate than it was. The struggle endured several years, one result being that Miss Jex-Blake found herself a defendant in a libel action which, though it ended in her being ordered to pay damages of only one farthing, involved costs of nearly £1,000. Subsequently legal proceedings commenced between the band of which she was the leader and the Senate of the University itself. Their object was to compel the Senate, which had expressed its intention of granting the women students only certificates of proficiency such as would be useless for the purpose of the Medical Act, to allow Miss Jex-Blake and her fellows to proceed to medical degrees like other students. In the earlier stages of this action the band was successful, but the final decision of the Scottish Court of Appeal reversed the judgement obtained and awarded costs in favour of the university. Though these costs were paid by a committee which had been formed as the result of a public meeting called by the Lord Provost in 1871 to carry on a campaign in aid of the plan of securing medical education for women in Edinburgh, the net outcome of the loss of the action was that Miss Jex-Blake and her followers abandoned the struggle in Scotland and returned to the South.

In this decision they were influenced by the fact that a movement such as they had headed in Scotland had commenced in London, one object being to persuade Parliament to make the right of the licensing corporations to accord their diplomas and degrees to women quite clear, and another the establishment of a school of medicine for women. Both were successful, the immediate outcome being the establishment of that very successful institution, the London (Royal Free Hospital) School of Medicine for Women, and the passage in 1876 of Mr. Russell Gurney's bill. In this campaign Miss Jex-Blake was among the leaders, and so soon as the Royal College of Physicians in Ireland—the first body to take advantage of the new Act—had made the necessary modifications in the wording of its regulations, Miss Jex Blake, who had already obtained a degree in the medical faculty of the University of Berne, applied for and received the licence of the college. Later on she was admitted to its membership.

Mentally Miss Jex-Blake was a woman of high ability and marked moral courage and determination. In addition she was possessed of many of the more commonly esteemed womanly qualities, though first and foremost, no doubt, she was an admirable fighter.

The late Dr. John Francis Sutherland.—Sir James Barr writes: The obituary notice of Dr. J. F. Sutherland in your last issue reminds me that another of my friends has joined the great majority, and I wish to take this opportunity of fully endorsing all the kind words which the writer of the notice has said about him. Your photograph, which must have been taken at least fifteen years ago, reveals the man in his thoughtful, contemplative mood, but does not display that genial, vivacious character with which his friends were familiar. To his great natural ability, sterling merit, fearless, independent and high moral character, all who knew him can bear testimony, but unfortunately these qualities do not always count in the public service, and consequently he did not attain to that position to which he was entitled, and in which some politicians had more than one opportunity of placing him. He was lacking in that obsequious, complacent, servile temperament which usually commends itself to those in place and power. His failure to attain the goal of his ambition should be a warning to those in the present day who are keen to trust their fate to politicians. His brilliant intellect was cramped by official surroundings, and if he had had a more expansive field his great merits might have been more fully recognized and more amply rewarded. The memory of Dr. Sutherland will ever remain green in the minds of those who knew him as one whom to know was to love and esteem.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Dr. Adam Szulislawski, Lecturer on Eye Diseases and Surgeon to the Ophthalmic Department of the General Clinic at Lemberg, aged 46; Dr. F. Topinard, formerly Professor in the Paris School of Anthropology; Professor von Levschin, Director of the Morosoff Cancer Institute, Moscow, aged 73; Professor W. F. Loebisch, of Innsbruck, a pupil of Hoppe-Seyler and author of numerous works on subjects of physiological chemistry, aged 72; Dr. Alessandro Serafini, President of the Faculty of Medicine and Director of the Institute of Hygiene of Padua; Professor Pietro Giuria, one of the leading stomatologists of Italy; Dr. E. Biernacki, Lecturer on General and Experimental Pathology at Lemberg, aged 46; and Professor Franz von Winckel, the distinguished gynaecologist, for twenty years Director of the Clinic of Diseases of Women in the University of Munich.

Universities and Colleges.

UNIVERSITY OF LONDON.

London (Royal Free Hospital) School of Medicine for Women.

Department of Pharmacology.

The Council has appointed Dr. Frederick Ransom, M.D.Edin., Internal Examiner in Pharmacology for the University of Cambridge, late Assistant to Professor Behring and Professor Hans Meyer, to be Lecturer and Head of the Department of Pharmacology.

Entrance Scholarships.

The examination for Entrance Scholarships will be held on May 28th and two days following. Forms of entrance and all particulars can be obtained on application to the Secretary and Warden.

UNIVERSITY OF BRISTOL.

The extramural lectures on "The Applications of Recent Research in Pathology and Bacteriology" will be given during the coming session by the Professor of Pathology at Bournemouth. The first demonstration will be held at the Bournemouth Medical Society's Rooms on Thursday, January 25th, at 5 p.m. The honorary local secretary is Dr. G. Carolin, Valerie, Southbourne Road, Bournemouth.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A quarterly Council was held on January 11th, Mr. R. J. Godlee, President, in the chair.

Physiological Curator.

Mr. R. H. Burne was appointed to this new office in place of that known as Assistant Conservator, the latter office being now discontinued.

The best thanks of the Council were given to Mr. Burne for his valuable services to the College during the last twenty years as assistant in the museum and Assistant Conservator.

Removal of a Member.

The name of a member of the College was removed from the list, his name having been already removed from the *Medical Register* by the General Medical Council.

University of Birmingham.

Sir W. Watson Cheyne was appointed, in the vacancy occasioned by the retirement of Sir Henry T. Butlin, a member of the Court of Governors of the University of Birmingham.

Hunterian Orator.

The President, Mr. R. J. Godlee, was appointed Hunterian Orator for February, 1913.

Royal Commission on University Education.

At the request of the Commission a committee was appointed by the College to draw up a statement upon dental education in London, and to nominate a witness or witnesses to represent the College before the Commission.

National Insurance Act.

A committee was appointed to watch the interests of the members under the provisions of the Insurance Act, with power to confer with any other committee formed with similar objects, with instructions to report to the next Council of the College.

Vacancy on the Court of Examiners.

The vacancy occasioned by the resignation of Mr. J. Ernest Lane will be filled up at the ordinary meeting of the Council on February 1st. Mr. Lane will be a candidate for re-election.

Sir Thomas B. Crosby.

The President announced that the Lord Mayor, Sir Thomas B. Crosby, F.R.C.S., had accepted an invitation to be the guest of the College at a dinner to be given at the college on May 3rd.

CONJOINT BOARD IN ENGLAND.

The following candidates have been approved at the examination indicated:

Second College (*Anatomy and Physiology*).—J. P. Adcock, C. F. Anthonisz, Mary E. Ashton, N. K. Bal, P. W. Barnden, Z. M. Bishara, N. Brigg, M. T. G. Clegg, S. Doraisamy, H. G. Dresing, C. T. J. Drobig, J. A. Durante, A. F. El-Hakim, F. E. Fielden, H. D. Field, G. C. Gell, L. A. Graham, A. R. Hacker, A. H. Harkness, F. C. Harrison, A. H. Hilmy, T. Jones, C. G. G. Keane, M. Kingsley, F. E. R. Laborda, J. A. Liley, K. C. Mundana, A. H. Manfield, R. M. Mitra, N. F. Norman, G. W. Parry, J. M. Parry, O. G. Parry-Jones, W. L. Partridge, H. Peters, G. F. Rodrigues, H. A. Rowell, A. St. Johnston, J. T. Samuel, N. H. W. Saw, F. G. L. Scott, W. G. Shakespeare, G. D. Shann, E. B. Sunderland, L. H. Terry, R. R. H. O. Tha, M. D. B. Tonks, C. N. Vaisey, J. R. N. Warburton.

Medico-Legal.

"NO CURE: NO PAY."

In an action for the recovery of fees for medical attendance, heard at Bloomsbury County Court on November 28th, 1911, the defence set up was an allegation of a verbal guarantee that the patient would be cured in three or four weeks. She was a young woman who, as the result of a consultation, had been placed in the charge of the plaintiff, Dr. George Herschell, to undergo a special treatment. After three weeks the plaintiff, finding that she did not improve as fast as had been anticipated, advised that the treatment should be discontinued and the patient sent to Margate. Payment of his fees being then refused the action was brought, and ended in a verdict for the plaintiff with costs

OBLIGATION NOT TO PRACTISE.

S.—A. sells B. a practice, agreeing not to practise in the town or within a certain radius. B. dies, and what is left of his practice is sold to C. Does the agreement hold good between A. and C. as if it had been made between A. and C.?

*** This will depend on the terms of the agreement when A. sold the practice to B. If A. agreed with B., his heirs, executors, and assigns, not to practise within the said limits, it would be binding on A. not to practise within those limits in opposition to C. Restrictive covenants of this kind are usually drawn up in this way, as the seller of a practice does not contemplate ever trying to get back again what he has been paid for in hard cash. If the agreement was only between A. and B., then C. has no rights under the restrictive covenant on the principle that *Res inter alios acta alteri nocere non debet.*

BOOK DEBTS.

C. H. W. P. writes that he was in partnership up to the end of 1910, but from that time the partnership was dissolved, the outgoing partner reserving his right to share in book debts. He wishes to know whether, in the case of payment by patients for attendance after the dissolution, where an account was due to the partnership from the same for an old

attendance, the whole of the money paid must go towards the settlement or reduction of the old debt, without any being set aside for the more recent attendance.

*** It is in the power of the patient to stipulate that the payment he makes is for the settlement of the more recent debt; but if he does not, the whole of the payment must be applied to the settlement of the earlier debt. The legal aphorism is *Qui prior est tempore, potior est jure.*

Public Health AND POOR LAW MEDICAL SERVICES.

AMALGAMATION OF OFFICES.

THE Edmonton District Council, at a meeting on January 9th, decided to hold a special meeting in committee to define the duties to be assigned to the officer it proposes to appoint to the amalgamated offices of medical officer of health and school medical officer, and to take the same steps in regard to his assistant, and to decide also their respective salaries and the advisability of advertising the posts. At present the posts are held independently by Dr. Lawrence and Dr. Rock respectively, but a short time ago both received statutory notice of the termination of their appointments in order that the amalgamation might be brought about. The decision to hold a special meeting was preceded by a long discussion, in the course of which two letters addressed to the Council by the Local Government Board and by practitioners in the locality were read. The former, after expressing approval of the amalgamation of the two departments, added:

> The Board considers that where possible this should be effected by the appointment of the same officer in both capacities, with an asssistant who would do the whole or the greater part of actual medical inspection, and would also act as assistant medical officer of health. The Board would be prepared to assent to the alteration of the terms of Dr. Lawrence's appointment, so as to enable him to act as school medical officer as well as medical officer of health. But if this is the intention of the Council, the Board does not understand why it should be necessary for them to give Dr. Lawrence notice that his appointment as medical officer of health will be terminated, and desires to be furnished with the Council's explanation on this point.

The other letter stated that for the past six years the signatories had worked amicably with the medical officer of health, and had found him tactful and obliging; they deprecated, therefore, the idea of advertising his post as vacant merely because it was proposed to amalgamate with his office the department of school medical inspection. With reference to the former letter, the chairman stated that he had verbally explained to the Local Government Board why the notices were given, and had added that the majority of the Council, he believed, had no wish either to damage Dr. Lawrence or to displace him from his office. He also drew attention to the motion standing in his own name for the appointment of Dr. Lawrence as medical officer of health and school medical officer, and of Dr. Rock as his assistant. This was subsequently put as a substantive motion, but on a discussion arising as to the precise alterations in salary to be made, the fairness of the projected arrangement to Dr. Rock, and the propriety of the local medical profession expressing its views, the matter ended in the decision to hold a special meeting in committee, and to defer the appointments until February 27th.

THE SANITARY CONDITION OF THE BEDFORD RURAL DISTRICT.

AFTER an inspection of the Bedford Rural District, which has a population of nearly 20,000 persons, Dr. Deane Sweeting is able to make a favourable report.[1] The District Council, he states, has shown commendable activity in sanitary administration. The officials are zealous and energetic. An infectious diseases hospital has been provided, in which, in spite of certain defects, 83 per cent. of the cases of diphtheria and scarlet fever occurring in the district have been isolated during the past eight years. Systematic efforts are being made to convert privies and middens into pail closets, and active steps are being taken to enforce the Housing Acts. In the Bedford Rural District, as elsewhere, private enterprise does not appear to be equal to the provision of a sufficient number of new cottages, and the council has accordingly decided to embark on a housing scheme for one part of its district, on which it is proposed to spend the sum of £1,100, for which sanction has been obtained from the Local Government Board. In some parts of the district water is supplied from shallow wells, dip wells, and other sources which are open to pollution. In other parts sewage disposal needs improving, while the scavenging arrangements in certain more or less populated districts are not very satisfactorily carried out, and in this connexion Dr. Sweeting recommends that the District Council should itself undertake the work. The administration of the isolation hospital is not altogether satisfactory. The patients are attended by a medical practitioner who is not the medical officer of health, that official apparently having nothing to do with the institution, which seems to suffer from the lack of medical administration as distinct from medical attendance. There are only five bedrooms in the administrative block for the female staff, which consists of a matron, three nurses, and four domestic servants. As a consequence one nurse sleeps in the scarlet fever block and two in the diphtheria block. The hospital was erected in 1901 at a cost of nearly £10,000, or about £528 a bed, and as there is accommodation for the treatment at one time of three diseases, Dr. Sweeting seems to have been fully justified in recommending not only an increase in the administrative accommodation, but also in the staff.

[1] Reports to the Local Government Board on Public Health and Medical Subjects. New Series No. 58. Dr. R. Deane Sweeting's Report on the Sanitary Circumstances and Administration of the Bedford Rural District. London: Wyman and Sons. (4d.)

Medical News.

THE first of the course of Page May Memorial Lectures, to be delivered by Dr. Henry Head, F.R.S., at University College, London, will be given on Friday next at 5 p.m. The first of the course of lectures on the bearing of chemical physiology on certain pathological questions, to be delivered by Dr. Rosenheim at King's College, will be given at 4.30 p.m. on Monday, January 29th.

THE President of the Board of Education has appointed His Majesty's Inspector Mr. J. C. Iles, Divisional Inspector of Elementary Schools in the North-Western Division, to be Chairman of the Departmental Committee on Playgrounds of Public Elementary Scheols, appointed on July 31st, 1911; and has also appointed Mr. E. B. Phipps, Principal Assistant Secretary of the Elementary Branch of the Board, to be a Member of the Committee. These changes are made in consequence of the resignation by L. A. Selby-Bigge, C.B., of the Chairmanship of the Committee on his appointment to be Permanent Secretary of the Board of Education.

A MEETING was held in York on January 10th for the purpose of making the necessary arrangements for the reception of the Congress of the Royal Sanitary Institute to be held in the city from July 29th to August 3rd. There was a large attendance, including the Archbisbop of York, President of the Congress. The Lord Mayor, who presided, having welcomed those present, Colonel Lane Notter, treasurer of the institute, explained the object of the congresses of the Royal Sanitary Institute, and Mr. H. D. Searles Wood, F.R.I.B.A., Chairman of the Congress Committee, stated that it was estimated that some 1,500 persons would attend the Congress. The Archbishop of York also addressed the meeting. Local committees were appointed to make the necessary arrangements. There will be five sections of the Congress, namely: (*a*) Sanitary Science and Preventive Medicine; (*b*) Engineering and Architecture; (*c*) Domestic Hygiene: (*d*) Hygiene of Infancy and Childhood; (*e*) Industrial Hygiene. Conferences have also been arranged between municipal representatives, medical officers of health, engineers and surveyors to county and other sanitary authorities, veterinary inspectors, and sanitary inspectors.

A QUARTERLY court of the directors of the Society for Relief of Widows and Orphans of Medical Men was held on January 10th, Dr. Walter Rigden, senior vice-president present, in the chair. Fourteen directors were present, amongst them being the Right Hon. Sir Thomas Boor Crosby, Lord Mayor of London, one of the vice-presidents of the society. His lordship has most kindly given his consent to be nominated president of the society, to fill the vacancy caused by the death of Dr. Blandford, and the directors feel that Sir Thomas Boor Crosby, who for so many years has taken the keenest interest in the work of the society, will make an ideal president. Since the last court one of the vice-presidents of the society, Sir Samuel Wilks, has died. Three gentlemen were elected members of the society. The sum of £1,288 10s. was voted for the payment of the half-yearly grants to the annuitants of the charity. The grants to the orphans have been increased from £15 per annum to £25. The invested funds of the society now amount to £101,700. Membership is open to any registered medical practitioner who at the time of his election is resident within a 20-mile radius from Charing Cross. The annual subscription is 2 guineas, but life membership may be obtained by the payment of one sum, the amount of which depends on the age of the candidate. Relief is only granted to the widows and orphans of deceased members; letters are constantly being received from widows of medical men asking for relief, but this has to be refused as their husbands had not been members of the society. Application forms for membership and full particulars may be obtained by application to the secretary at the offices of the society, 11, Chandos Street, Cavendish Square, W.

Letters, Notes, and Answers.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London*. The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London*.

TELEPHONE (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

HIRSUTE asks for advice as to the treatment (removal or preferably bleaching) of hairs on the upper lip of a young girl.

L.R.C.S.I. asks for advice in the treatment of a woman aged 25 who has had pain in the right gastrocnemius muscle for the last three years. There is no history of strain or accident, and massage, blistering, salicylates, and potassium iodide have been used without success; pain ceases when the limb is rested.

L.R.C.P. AND S. (a planter's doctor) wishes to know if there is any service for medical men in India who are desirous of volunteering to serve during war as medical officer with honorary rank at other times. He is a member of a volunteer corps at present, but cannot hold any rank, as there is already another medical officer.

A. K. B. (China) has been asked to treat superfluous hairs especially abundant on the trunk of body, rendering the possessor, an Englishman, uncomfortable during the hot Chinese summer. The inquirer would be glad to know of any treatment suitable for such a case. *X*-ray treatment is not available. If ionization has been successful, "A. K. B." would like particulars as to the drug most suitable and the strength of current used.

D. B. W. would be glad to receive suggestions for treatment of a married lady who suffers from what appears to be rheumatism in the head. The pains are very severe and cramp-like or lancinating. The worst attacks are followed by vomiting, which does not bring relief. The rheumatic character of the attacks is suggested by the fact that occasionally the pain passes to the neck and left shoulder, and that she has suffered considerably from ordinary rheumatism. For some time she cannot read for any length of time without the eyes filling with tears and smarting. The usual rheumatic remedies have been tried—namely, sodium salicylate, quinine, and aspirin—without any effect. The district is damp and the house not of the driest.

ELECTRIC BICYCLE LAMP.

COUNTRY PRACTITIONER desires to know if any medical man can recommend a good electric lamp (dry or wet cell) for use with an ordinary bicycle, and where such can be obtained.

EVIDENCE OF MASTURBATION.

PERPLEXED WITNESS asks for information which might assist him in stating positively that a given person is not a masturbator. An old and esteemed patient of his is about to apply to the Court of Criminal Appeal against a conviction, mainly based on a belief that he is a person of the kind in question, and this belief our correspondent holds to be unfounded. As he is the subject of a hernia which causes frequent trouble, "Perplexed Witness" has often had occasion to examine him during the past five years, and has never noticed any discharge about the meatus, stiffening of the linen, or smell. Nor is there now perceptible any irritation of the glans, elongation of the prepuce, or tortuosity, thickening or enlargement of the dorsal vein.

ANSWERS.

MR. CECIL ROWNTREE, F.R.C.S., writes, in answer to "Father's" query about the operative treatment of unduly prominent ears: I can at any rate tell him of one such case in which perfectly satisfactory results were obtained. The patient was an adult whose ears were certainly very prominent indeed—so much so that he imagined that they were a bar to his success in life. He consulted Dr. McCarroll, of Shepherd's Bush Green, who sent him to me with the result above mentioned. The operation consists in excising a narrow lozenge of cartilage at the back of the ear, through a vertical incision at the junction between the ear and the skull. The scars are now, of course, invisible.

HYPODERMIC APERIENTS.

DR. J. MANSON (Warrington) writes, in reply to "S. H. R.": I have used a solution of aloin hypodermically, but did not get satisfactory results. I used ½ grain of aloin in 30 minims of distilled water sufficiently warm to dissolve the aloin as one dose. I gave the injections to patients in hospital, who, for one reason or other, could not swallow ordinary aperients. My results were unsatisfactory, either because the dose was too small or the aloin inactive, as it sometimes is, for active aloin undoubtedly causes catharsis if injected subcutaneously or intravenously (see Cushny's *Textbook of Pharmacology*).

SOMNAMBULISM.

INERTIA.—We do not know of any monograph upon somnambulism, though many authoritative works contain articles upon sleep and its disorders. At the end of the articles upon the Disorders of Sleep, by Dr. J. B. Bradbury, and Night Terrors, by Dr. Leonard G. Guthrie, in Allbutt and Rolleston's *System of Medicine* (1910), valuable references are given to textbooks, and special articles upon sleep and its disorders. The special articles which "Inertia" should consult will depend, like the prognosis and treatment, upon the nature of his case—that is, whether one of simple somnambulism or one of hysterical or epileptic somnambulism. For a complete and satisfactory physiological explanation of hysterical somnambulism "Inertia" cannot do better than read Pierre Janet's *The Major Symptoms of Hysteria* (Macmillan, 1907). Possibly he might find Boris Sidis's article on Experimental Study of Sleep (*Journ. of Abn. Psych.*, April-May, June-July, and August-September, 1908) of interest.

LETTERS, NOTES, ETC.

TUBERCULIN DISPENSARY LEAGUE.

MRS. STUART ERSKINE (Honorary Secretary, Tuberculin Dispensary League, 10, Ovington Gardens, London, S.W.) writes: May I solicit the courtesy of your columns for an appeal to those doctors who, having studied Dr. Camac Wilkinson's methods of tuberculin administration, have now themselves opened similar dispensaries? The spread of the movement has been so rapid, that it has not been possible to keep in touch with all. I should be glad to have from such institutions annual reports not later than April 30th in each year, for publication in the annual report of the Tuberculin Dispensary League.

SANITARY MAXIM COMPETITION.

GREAT minds jump. Mr. *Punch* has been complaining of the inappropriate monotony of the Keats Calendars, and Burns Calendars, and Tennyson Calendars, and has offered, for a consideration, to supply appropriate quotations for a Golfer's Calendar, a Suffragette's Calendar, and so on. Dr. Kennan, Senior Sanitary Officer, Sierra Leone, imbued with the same idea, but in a more altruistic spirit, offers prizes for the best collection of fifty-three short maxims with application to the subject of public health and sanitation for inscription on a "Clean-up Day" Calendar, for use in countries where malaria prevails and anti-mosquito vigilance is necessary. In many towns in the tropics the authorities have declared one day in the week to be clean-up day, so that residents may be reminded of their duty with regard to the collection and destruction of receptacles which favour the breeding of mosquitoes. The calendar, which is a block calendar, can be obtained from Messrs. M'Caw, Stevenson and Orr, Limited, price 67s. 6d. per 100 for a minimum of 500, 48s. per 100 for a minimum of 1,000, 42s. 6d. per 100 for a minimum of 5,000. There are two sets of prizes for men and boys and women and girls respectively—first, 30s.; second, 20s.; third, 10s.

GALACTORRHOEA AND AMENORRHOEA AFTER INCISIONS FOR INTRAMAMMARY ABSCESSES.

DR. JOHN J. HANLEY (Hull) writes: The following notes may be of interest, as showing the correlation between galactorrhoea and amenorrhoea, having regard to the facts alluded to in your issue of December 30th, 1911, p. 1709. A 4-para was delivered of a healthy child on October 8th, 1911. Three weeks later she had to abandon suckling her babe owing to recessed, painful, and fissured nipples. The usual means were successfully adopted to suppress the lacteal secretion. Intramammary abscesses developed in the first week in November, in three distinct areas in the lower hemisphere of the left breast, though the nipples in both breasts were quite healed. These abscesses necessitated incision under general anaesthesia on November 9th. The lacteal secretion returned to both breasts, and still continues (January 3rd), for the breast is not yet healed, although healing nicely. There has been no indication of menstruation. When the breast is healed I anticipate, in the light of the report of Dr. Vogt, cessation of lacteal secretion and a return of the menstrual function.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

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